

# Chemistry 20482 – Basic Organic Chemistry II – Spring 2009

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Dr. Earley's Schedule				
	M	T	W	R
9:30-12:20pm		Organic Lab		
10:00-11:00pm	Office Hrs.	Organic Lab	Office Hrs.	
11:00-12:15pm	Fund. Chem.	Organic Lab	Fund. Chem.	
12:15-1:00pm	Office Hrs.		Office Hrs.	
1:00-2:00pm		Office Hrs.		Office Hrs.
2:00-2:50pm		Basic Organic		Basic Organic
3:00-4:00pm		Office Hrs.		
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*

## Texts

- Required: *Organic Chemistry*, by Janice Smith; McGraw-Hill, 2008; 2<sup>nd</sup> Edition.
- Optional: *Solutions Manual*.
- Optional: Any type of molecular model kit.

## Prerequisites

Students are expected to have successfully completed the equivalent of one semester (4 credit hours) of a college-level Organic Chemistry for science majors, which will typically be CHEM 20481.

## Course Description

This course is a continuation of CHEM 20481, and emphasizes reactions and mechanisms of organic compounds. The order of topics will NOT follow the order in the textbook due to our need to cover those topics which were not covered in 20481.

Spectroscopy (mass spectrometry, infrared and ultraviolet spectroscopy, and NMR) will NOT be covered in the lecture portion of this course, but instead is covered in CHEM 30475 & 30476 (Organic Chemistry I & II Laboratories). If you are not getting this information in lab, please see me to make arrangements to cover this material.

## Grading

Grades for this course will be based entirely on the results of four examinations worth 100 points each and one 100 point cumulative final. Tentative dates for these examinations are given in the lecture outline below. Grades will be based on the scale given below. Grades will not be curved or arbitrarily adjusted in any manner, and extra credit will not be given.

Grading Scale		
Lecture Examinations	4 x 100 pts	400 pts
Cumulative Final	100 pts	100 pts
<b>Total</b>		<b>500 pts</b>

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	450-500	440-449	410-439	400-409	390-399	360-389	350-359	300-349	<300

## 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.

## Examinations

The format of examinations will be varying combinations of multiple choice, true/false, and short answer. 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. Be able to predict the major organic product(s) expected from chemical reactions.
4. Be able to predict reasonable starting materials and synthetic procedures (reaction conditions) used to prepare given compounds.
5. Draw the mechanism for a chemical reaction using the curved arrow formalism.

You will also be expected to predict reasonable routes to synthesize selected compounds and combine multiple reaction steps. This course places a greater emphasis on understanding of reaction mechanisms than the first semester course.

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 start of finals week.

The final examination is scheduled for Tuesday, May 12 at 1:00pm. The final 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](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](mailto: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](http://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 and Homework

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. Note that the last section of each chapter is entitled "Key Concepts". While this section is generally not included in the following table, the relevant parts of this section should always be reviewed.

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.

All of the following problems are taken from the end of chapter exercises in *Organic Chemistry*, by Janice Smith; McGraw-Hill.

Chapter	Content	Homework
17	Benzene	#25, 26, 29, 30, 33, 35, 39, 41
18	Electrophilic Aromatic Subst.	#32, 33, 35, 38, 41, 44, 47, 48, 52, 53, 54, 56
19	Carboxylic Acids	#29, 33, 35, 37, 38, 41, 46
21.10-end	Nucleophilic Addition	#46, 47, 48, 52, 59, 62, 63, 66, 75, 79
22	Nucleophilic Acyl Subst.	#43, 44, 45, 49, 53, 56, 58, 61, 63, 66, 67, 69, 71, 76
23	$\alpha$ -Carbon Reactivity	#30, 31, 38, 41, 42, 43, 46, 47, 51, 54, 57, 59
24	Carbonyl Condensation	#26, 29, 30, 32, 34, 35, 38, 39, 41, 42, 44, 49, 50, 53, 54
25	Amines	#45, 48, 49, 53, 56, 59, 62, 63, 64, 69, 77

## Tentative Schedule

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

Week beginning ...	T	R
Jan. 19	Ch. 17	Ch. 18
Jan. 26	Ch. 18	Ch. 18
Feb. 2	Ch. 18, Review	<b>Exam #1</b>
Feb. 9 <sup>(S)</sup>	Ch. 19	Ch. 21
Feb. 16	Ch. 21, 22	Ch. 22
Feb. 23	Ch. 22, Review	<b>Exam #2</b>
Mar. 2	Ch. 22	Ch. 22
Mar. 9	Ch. 22, 23	Ch. 23
Mar. 16	Ch. 23	Ch. 24
Mar. 23	<b>SPRING BREAK</b>	
Mar. 30 <sup>(W)</sup>	Ch. 24	Ch. 24, Review
Apr. 6	<b>Exam #3</b>	Ch. 25
Apr. 13	Ch. 25	Ch. 25
Apr. 20	Ch. 26	Ch. 26, Review
Apr. 27	<b>Exam #4</b>	Biochemistry
May 4	Biochemistry	Review

<sup>(S)</sup>Last day to receive any tuition refund is February 13.

<sup>(W)</sup>Last day to withdraw from a course is April 3.

Final examination for this class is scheduled for Tuesday May 12 at 1:00pm.