CHE 230-002
Organic Chemistry I

Dr. Susan A. Odom
207 Chemistry-Physics Building
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Office Hours: MWF 11:00 am-12:00 pm in CP-207
Help Sessions: M 5:00-6:00 pm in CP-220

If you need to set up appointment if you cannot make those hours, email me. *Use your uky.edu email address. Begin the subject line with “CHE 230.”*

Course website: [www.chem.uky.edu/che230/SAO](http://www.chem.uky.edu/che230/SAO)
ORGANIC CHEMISTRY

the study of carbon-containing compounds
Note! CHE 230-003

MWF 11:00-11:50 AM, CP-220
Instructor: Dr. Mark Watson
mdwatson@uky.edu

“for high-performing chemistry majors or students who received an A in CHE 107”
The Elements of Organic Chemistry
Medicine

glutamic acid

valine

red blood cells

hemoglobin
Pharmacology / Environmental Science

Paclitaxel, or Taxol

Pacific yew tree

spotted owl
Electronics

conjugated polymers
(poly(phenylene-vinylene))

acenes
(pentacene)
Engineering

- plumber’s tape
- medical implants
- teflon
- non-stick bakeware
- orthodontics
Course Goals:

Understand the relationship between structure & properties of organic compounds

You will learn:

• how atoms are joined together in organic compounds
• how their structure affects their bulk properties
• how we can gain information about the structure of unknown organic compounds
• how organic compounds are transformed into other organic compounds
• the structure and reactivity of the major classes of organic compounds
TODAY:

SYLLABUS & RESOURCES

COURSE POLICIES

ACE ORGANIC

LEWIS STRUCTURES
READ THE FULL SYLLABUS!
http://www.chem.uky.edu/courses/che230/sao/

THE UNIVERSITY OF KENTUCKY
DEPARTMENT OF CHEMISTRY

CHE 230, Introduction to Organic Chemistry (3 credit hours)

Course Description

Fundamental principles and theories of organic chemistry. Prereq: CHE 107 or CHE 115.

Course Information

- Instructor: Dr. Susan Odom
- Office: 207, Chemistry-Physics Building
- susan.odom@uky.edu

Fall 2011 CHE 230-002 Class Sessions: TR 12:30 pm - 1:45 pm, CP-139

The complete syllabus for this course is linked here.

Syllabus


The Course

This course is the first part of a two-part introduction to the principles of organic chemistry, the chemistry of the compounds of carbon. The content can be classified as 'structure and synthesis.' You will learn how atoms are joined together in organic compounds, how their structure affects their bulk properties, how we can gain information about unknown organic compounds, and how organic compounds are transformed into other organic compounds. We will study the structure and reactivity of the major classes of organic compounds. Upon completing the course, students will have the ability to analyze simple organic reactions and predict the outcome of reactions, even ones that are not discussed.
Your Textbook, Your Choice

official book:
I’ll post some on the website, but look for your own too. Let me know if you find good resources I haven’t posted!
Molecular Model Set

Buy from SAACS (chemistry club)
CP-219
$18
EXTRA PRACTICE PROBLEMS & OLD EXAMS

http://www.chem.uky.edu/courses/che230/

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CHE 230

THE UNIVERSITY OF KENTUCKY

DEPARTMENT OF CHEMISTRY

CHE 230, Organic Chemistry I (3 credit hours)

Course Description

The first class in a two-class sequence of Organic Chemistry: Prerequisite CHE 107.

To access your class home page you need to know the name of your instructor.

Prof. Anthony's section
Prof. Cammers' section
Prof. Glazer's section
Prof. Grossman's section
Prof. Harris's section
Prof. Kuhler's section
Prof. Ladipo's section
EXAMS

held in class except for the final

• September 20
• October 18
• November 15
• December 13 (8:30-10:30 PM)

• Disability needing accommodation? Let me know ASAP
Grading

• ACE Homeworks 100
• Exam 1 200
• Exam 2 200
• Exam 3 200
• Final Exam 300

Total Points Possible 1000

Grades assignments
A: 900-1000 points
B: 800-899 points
C: 700-799 points
D: 600-699 points
E: 0-599 points

Exceptions:
If you have obtained 650 points or more before the final examination, you will receive an A for the course, no matter your grade on the final (you don’t even have to take it!)

If you receive a 285 or higher on the final exam and your total score is below 900, your letter grade will be raised to the next higher letter grade.
Ace Organic: http://epoch.uky.edu/ace/

University of Kentucky ACE UKY-3.2

Choose a language: English

Registered users login here:
Username:  
Password:  
Login

Not registered?
Register

Browser settings | Browser check-up
Troubleshooting | About

ACE's cheminformatics partner
ChemAxon  License all ChemAxon's tools for FREE: Sign up here

The development of this program has been funded partly by the National Science Foundation.

Check out some utility programs based on methods developed for ACE.
Course Information

Course (Course ID): CHE 230-002 F2011 (2030)
Book: Smith
Instructor: Odom, Susan A., University of Kentucky
Course home page: http://www.chem.uky.edu/courses/che230/SAQ/
Problems? Report software bugs (errors, crashing problems, inability to access content, etc.) to the webmaster.

Report problems with the content (correct answers rejected as incorrect, irrelevant feedback, etc.) to your instructor.
<table>
<thead>
<tr>
<th>Do assignment</th>
<th>Length</th>
<th>Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework #1</td>
<td>3 questions</td>
<td>Aug 29, 2011, 11:59 PM, EDT</td>
</tr>
</tbody>
</table>

[timers and student grading parameters]
the number of submissions allowed before point deductions
Homework #1

Maximum allowed tries per question: Unlimited
The goal of this homework is to register and log into Ace Organic, then to answer the questions correctly. You have an unlimited number of tries. It is okay to look up the answer in a book or on the internet. However, if you don't know how to generate the answer on your own, a review of Lewis dot structures would be a good idea.

(1) Draw the Lewis structure for H₂SO₄, a neutral molecule.

Please submit your first response.

Submit Response  Save without submitting
QUESTIONS ABOUT COURSE POLICIES?
The Elements of Organic Chemistry

Organic chemistry focuses on valence electrons
STRUCTURE AND REACTIVITY

• Lewis structures
• Resonance
• Molecular Orbital Theory
• Stereochemistry
LEWIS STRUCTURES:

a simple description of the position of electrons and nuclei in organic molecules
LEWIS STRUCTURES

\[ \text{CH}_4 \]
Draw Lewis Dot Structures for

\[ \text{C}_2\text{H}_6 \quad \text{C}_2\text{H}_4 \]

\[ \text{NH}_3 \quad \text{NH}_4^+ \]
Calculate the Formal Charges

B

C

N

O

F

\[ \text{B} \quad \text{C} \quad \text{N} \quad \text{O} \quad \text{F} \]

\[ \text{B} \quad \text{F} \quad \text{N} \quad \text{C} \quad \text{O} \]

\[ \text{B} \quad \text{F} \quad \text{N} \quad \text{C} \quad \text{O} \]
YOUR TO DO LIST

Visit the course website
http://www.chem.uky.edu/courses/che230/SAO/

Read the full version of syllabus

Read 1.1-1.9 in Smith’s 3rd edition before next class. Keywords: Lewis structures, formal charge, resonance, molecular orbital theory

Register for Ace Organic and complete the first assignment before August 29th at 11:59 PM