Organic Chemistry II    Chem 322 Fall 2007

Course

Chemistry F322 Organic Chemistry I
3.0 Credits
NSCI 202, MWF 1:00-2:00 pm
and Solutions Manual
Prerequisite: Chem 321 Organic Chemistry
Recommended: ACS Organic Chemistry Study Guide

Instructor

Thomas Green, Professor of Chemistry
NSCI 174
Phone: 474-1559
Email: ftkg@uaf.edu
Office Hours: Tuesday 2-5pm, Thursday 2-5pm.
Website:
http://www.uaf.edu/chem/green/greenuaf.htm

Schedule and Coverage

Sept 7- Oct 1   Chapters 16-18
Oct 3-Oct 22 Chapters 19-21
Oct 24 - Nov 19- Chapters 22-24
Nov 26- Dec 10 - Chapters 25, 26
Dec 12,14 Review

Exam Dates (5 @ 100 pts = 500 pts)

Oct 2, Tues 7-9 pm, Chapters 16-18
Oct 23, Tues 7-9 pm, Chapters 19-21
Nov 20 Tues 7-9 pm, Chapters 22-24
Dec 11, Tues 7-9 pm Chapters 25,26
Dec 17, 1-3 pm ACS Comprehensive Final (Full Year)

Homework (2 types)

OWL (165 pts)

See OWL Link on the Course Webpage. Due dates are indicated within the OWL website.

End-of-Chapter Problems: (110 pts)

Chapter 16: 16.57,16.59,16.60, 16.64, 16.69 Due Sept 17
Chapter 17: 17.47,17.48,17.52,17.57,17.63 Due Sept 24
Chapter 18: 18.33,18.44,18.49, 18.51,18.54 Due Oct 1

HyperChem Assignments (4 @ 20 pts = 80 pts)

Assignments and Due Dates given later.
Chapter 22: 22.28, 22.29, 22.38, 22.47, 22.49. Due Nov 5
Chapter 23: 23.47, 23.50, 23.52, 23.53, 23.54. Due Nov 12
Chapter 24: 24.48, 24.51, 24.54, 24.57, 24.60. Due Nov 19

Point Totals

5 exams @ 100 pts each = 500 points
OWL HW = 165 points (1/2 point each answer).
End-of-Chapter HW 11 @ 10 = 110 points
HyperChem 4 @ 20 pts = 80 points

Total = 855 pts

Grading

90-100%  A
80-89%    B
70-79%    C
60-69%    D
<60%      F

Course Description:

This course will focus on the theory of organic chemistry (or chemistry of molecules containing carbon) from the viewpoint of structure/reactivity relationships. Topics covered will be bonding, functionality, reactivity, synthesis, spectroscopy, nomenclature, and computer modeling. Homework and Exams will constitute the majority of the points earned in class, with some computer modeling using the Department's HyperChem software.

Goals: At the end of this course, students should be proficient in

1. Understand fundamental concepts of bonding in organic functional groups.
2. Know how to name simple organic compounds.
3. Be able to predict the reactivity of all major organic functional groups.
4. Be able to confidently interpret the IR and NMR spectra of simple organic compounds in order to arrive at a structure.
5. Understand the basic concepts of stereochemistry.
6. Be able to predict and write mechanisms of reactions based on fundamental concepts of acid/base chemistry (nucleophiles and electrophiles).
Instructional Methods:

1. The instructor will lecture on the theoretical aspects of organic chemistry, using a combination of Power Point slides and Chalkboard, providing copies of notes to the students on the web.

2. Exams will be offered on Tuesday evenings at 7 pm in order to provide for a more relaxed and thoughtful environment for taking exams.

3. Computer modeling assignments will be given on a timely basis in order to reinforce concepts in lecture.

Notes and Policies:

1. Exams are held on Tuesday and are approximately 2 hours in length. Those unable to attend due to work, conflicting classes, etc., will be allowed to take the exam at a later date, preferable the day after the regular time period. Arrangements should be made with the instructor to schedule the exam. Molecular models are allowed during the exam except for the ACS Final. The Final is scheduled.

2. Modeling assignments will be given in class and will involve the use of the program HyperChem, which is available to students in the Departmental Computer Lab. A user name and password is required to use the computers.

3. Class attendance is expected and will be taken.

4. Make-up exams are only allowed in the event of a legitimate excuse as determined by the instructor. Oversleeping is not an excuse. Exams must be made up as soon as possible.

5. Cheating will result in a grade of F for the course.

6. The course will move quickly and it is important to keep up on a daily basis. The best way to do this is to read the text and to work the problems. Use the solution manual after you have worked the problems.

7. Students with documented disabilities who may need reasonable academic accommodations should discuss these with me during the first two weeks of class. You will need to provide documentation of your disability to Disability Services in the Center for Health and Counseling, 474-7043, TTY 474-7045. I will assist you in providing accommodations.

8. **ATTENTION:** Those wishing to take Chem 324 Organic Lab in the future should get on the waiting list. Contact Mist in the Chemistry Dept Office, NSF 19, 474-5510.