CHEM 213 Elementary Organic Chemistry
University of Delaware
1st Summer Session, 2012

Instructor: Dr. Michael A. Stemniski

Office: 171 Brown Lab

Office Hours: Before class, after class, or by appointment

Phone: 302-239-4890

e-mail: mastem@Udel.edu

Lectures: June 4 to July 6, Inc. Final Exam - July 7

Time: 9:45 AM - 11:15 AM, daily

Location: 207 Brown Lab

Text: Brown/Poon - Introduction to Organic Chemistry, 4th Ed 2011

NOTE: Attendance to class is not mandatory. However, excess absences will severely effect your grade as pertinent information concerning the course is presented in lecture.

ADA Reasonable Accommodations

Pursuant to Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, the University provides reasonable accommodations for individuals with documented disabilities. Students registered in this course who need reasonable accommodations should make this known to the instructor and also document the needs with the Office of Americans with Disabilities Act.

CHEM 213 Summer 2012 - Tentative Class/Examination Schedule

Text Assignment	Exam Assignment
Brown/Poon, Chapters 1,2,3	Exam I, Monday 6/11
Brown/Poon, Chapters 4,5,6	Exam II, Friday 6/15
Brown/Poon, Chapters 7,8,10	Exam III, Friday 6/22
Brown/Poon, Chapters 9,13,14	Exam IV, Friday 6/29
Brown/Poon, Chapters 15,16.17	Exam V, Thursday 7/5
	Final Exam, Saturday 7/7

CHEM 213 Summer 2012 - Grading Policy

The minimum requirements for obtaining a passing grade and credit in CHEM 213, Summer 2012 are:

a. Completion of the five scheduled examinations

b. Completion of the final exam

c. Obtaining an average of at least 60% according to the suggested scale

A) Examinations (75%) - Five 100 percentage point examinations will be given and must be taken by all students. An unexcused missed examination will be recorded as a ZERO and may not be made up. All exams will cover material in lecture and material from the assigned reading (but not from the laboratory).

B) Final Exam (25%) - The final exam will be given at the conclusion of the course and must be taken by all students

Failure to complete any of the above requirements will merit no credit for CHEM 213, Summer 2012.

If an examination is missed for whatever reason, it is the responsibility of the student to contact the instructor within a reasonable period of time. If not, it will be assumed that the student does not wish to continue in the course.

The University of Delaware policy on Academic Honesty will be followed in this course. Violations of any parts of this policy could mean your removal from this course with no academic credit.

The Family Educational Rights and Privacy Act of 1974 (FERPA) stipulates that test/lab grades cannot be posted, given over the phone, or by e-mail. These grades, however, can be released to students in person.

The following grade scheme will be followed with averages rounded to the nearest tenth (0.1) of a point:

Average	Grade	Average	Grade	Average	Grade
93.3 - 100	A	80.0 - 83.2	B-	66.7 - 69.9	D+
90.0 - 93.2	A-	76.7 - 79.9	C+	63.3 - 66.6	D
86.7 - 89.9	B+	73.3 - 76.6	C	60.0 - 63.2	D-
83.3 - 86.6	B	70.0 - 73.2	C-	0.00 - 59.9	F

Problems for Brown/Poon, 4th Edition

CH 1: 1a,b, 2, 3, 4, 5, 6b,c, 7a, 17b,c, 19, 20, 22, 24, 26, 27a,b,c,e,f,k, 28b, 31a,b, 37a,b, 38a,b, 41a,b,c,d, 48a,b, 51a,b,c,f, 53, 52a,c, 57

CH 2: 1, 3, 6, 7a, 11a,b,c,d, 13a,b,c, 16, 17a,b,d, 18b, 19a, 28b, 29b, 30b

CH 3: 1, 3a,b, 4, 5c, 7, 8, 10, 13a,b,d, 14, 17, 24a,b,c,d,f, 25a,b,c,d, 28a,b,c,d, 32, 33a,b, 41, 44, 47a,b,c

CH 4: 1, 3b, 4b,c, 10a,b,c, 14a, 15, 16a,d,e, 18b,d,f,g, 22a,b,c,d, 23a,b, 27a,b

CH 5: 2, 3, 5, 7, 9, 10a, 11a, 15, 17, 18, 19a,b,c, 21, 22, 23b, 24a,c, 25a, 26a,b, 27a, 30a,d,e, 36, 41a,c, 43a,c, 51a,c,d,e, 52a,b,c,d,e, 54a,b,d,e

CH 6: 1b, 2b,c, 3, 4, 6, 14a, 15a,b,d, 19a,b,c, 20, 23, 24a,c, 25, 30, 31c,d,e,f, 35, 36

CH 7: 1a,b,c, 2, 3a, 6, 7a,b, 68, 9b,c,d,f, 10b,d, 11a,e,f, 13, 15a,b,c, 20, 21a,b, 22b,c,e,f, 25, 26a,b,d, 28a,b,c, 31a,c,d, 36a,b,c

CH 8: 1a,b, 2a,b,d, 3b, 5, 6, 7b, 9, 11a, 13a,b,c,d,e, 14a,b,e, 15a,e,g, 16a, 26a,b,c,e, 34a,b,c,d,e, 35a,b,c,d,e,f, 38a,b,c,e,f, 41a,b, 42a,c, 45a,d,f, 46a,b,c

CH 10: 2a,b, 3b,c, 7a, 11b,c,d,J, 12b, 14a,b, 15a, 22a,b,c,

CH 9: 2c, 3a, 5b,c, 7a,b, 9a,b, 11a,b,c,e,f,h, 13a,b,e,h, 14a,b,c,f,l,J,l, 18a,b, 26a,b,c,e,f,g, 30a, 31a,c, 37a, 38a, 42a,b,e

CH 13: 1a, 5a, 10a,c, 11a, 12a, 13a,b, 17a,e, 18a,b,c,d, 21a,c,d, 24a, 30a, 36a,b,c

CH 14: 4a, 5a, 6a, 9a,d, 10b,c,f, 18a, 20a, 23a,c, 30a,c,e,f, 33a

CH 15: 1a,f, 2b, 4a, 5a, 9b,c,f, 10a, 15, 20a,b,d,e, 21a, 26a,b, 27a,b,c, 29a,c, 33c

CH 16: 1a,b,c, 2a, 3a, 7, 8, 13a,b,c, 17a, 18a, 27a, 31

CH 17: 2, 3, 9a,b

CHEM 213 Course Learning Goals

After successfully completion of this course, a student should be able to:

1. Predict the electronic structure of atoms especially carbon
2. Draw Lewis structures of molecules showing bonding atoms, resonance structures, if applicable, formal charges, polarity, and bond angles through the VSEPR model of molecules
3. Identify organic functional groups from molecular structures
4. Relate the characteristics of the three major acid/base theories to the structures of molecules
5. Determine the strengths of acids and bases from their molecular formulas
6. Name and draw structures of alkanes and cycloalkanes by using common nomeclature and the IUPAC system
7. Recognize the physical and chemical properties of saturated hydrocarbons
8. Name and draw structures of alkenes and alkynes and identify the products of chemical reactions starting with alkenes and alkynes
9. Determine the reagents needed to produce various products of alkene and alkyne reactions
10. Write a mechanism for selected chemical reactions
11. Define the pertinent terms related to stereochemistry and relate them to the concept of chirality
12. Draw structures of haloalkanes from names and write names from structures and identify the characteristics of S_N1, S_N2, E_1, and E_2 reactions of haloalkanes
13. Relate the names of alcohols, ethers, and thiols to their structures and determine the reagents needed to prepare and react these compounds
14. Draw the structures of common benzene-like molecules and their derivatives
15. Relate the concept of aromaticity to the reactions of benzene and substituted benzenes
16. Define the physical and chemical characteristics of amines
17. Draw the structures and write the names of aldehydes and ketones
18. Determine the products of reactions of aldehydes and ketones with various reagents
19. Define the physical and chemical properties of carboxylic acids and their derivatives
20. Draw the structures of the products of the reactions of carboxylic acids and their derivatives with various reagents
21. Determine the structures of the condensation products of reactions of enolate anions
22. Recognize the various types of synthetic polymers and the names of the reactions to produce them and the monomer starting materials

CHEM 215 - Elementary Organic Chemistry Laboratory
University of Delaware
1st Summer Session, 2012

Instructor: Jennifer Thompson

e-mail: jlt@udel.edu

Scheduled Time: 12:30 P.M. - 3:30 P.M. Monday, Wednesday, Friday

Location: 112 Drake Hall

Laboratory Manual: Bettelheim & Landesburg - Experiments for Introduction to Organic Chemistry: A Miniscale Approach

NOTE: Attendance to laboratory is mandatory and it is imperative that the entire experiment be read and the procedure familiarized before each session. Proper dress is required and goggles must be worn at all times in the laboratory.

CHEM 215 Summer 2012 - Proposed Laboratory Schedule

June 06	Exp 4	Melting Points
June 08	Exp 3	Distillation
June 11	Exp 7	Identification of Hydrocarbons
June 13	Exp 10	Models II
June 15	Exp 6	Extraction
June 18	HdOut	Thin Layer Chromatography
June 20	Exp 8	Dehydration of 2-Methylcyclohexanol
June 22	Exp 9	Alcohols and Phenols
June 25	Exp 14	Amines and Amides
June 27	Exp 15	Aldehydes and Ketones
June 29	Exp 18	Banana Oil

CHEM 215 Summer 2012 - Grading Policy

Eleven experiments are scheduled and the best ten (10) laboratory scores will determine the laboratory grade

The following grade scheme will be followed with averages rounded to the nearest tenth (0.1) of a point:

Average	Grade
95.0 - 100	A
90.0 - 94.9	A-
85.0 - 89.9	B+
80.0 - 84.9	B
75.0 - 79.9	B-
70.0 - 74.9	C+
65.0 - 69.9	C
00.0 - 64.9	F

CHEM 213/215 QUESTIONNAIRE

NAME _____

ADDRESS _____

_____

_____

PHONE _____

E-MAIL _____

HIGH SCHOOL ATTENDED _____

IF NOT IN DELAWARE, WHERE LOCATED _____

COLLEGE PRESENTLY ATTENDING _____

PREVIOUS CHEMISTRY COURSES _____
INCLUDING HIGH SCHOOL

_____

_____

WHY ARE YOU TAKING THIS COURSE?

WHAT GRADE DO YOU NEED IN THIS COURSE?_____WANT?_____EXPECT?_____

TELL ME A LITTLE ABOUT YOURSELF