ORGANIC CHEMISTRY II CHM 235  
WINTER SEMESTER 2007  
4 Credits, Section 10576  

Tu, Th 10:00 - 11:47 am, DHE 200  
Roman Dembinski  

COURSE CATALOG DESCRIPTION  

A continuation of CHM 234. A study of the organic chemistry of functional groups and an introduction to biologically important organic compounds.  

PREREQUISITE  

CHM 234 (Organic Chemistry I)  

Important: Each student is expected to have a thorough command of all material in the first semester of organic chemistry. A poor background is a leading cause of failure in this course.  

TEXT  

(4th (old) edition ISBN 0-13-140748-1 contains almost identical material and can be used)  
by Paula Yurkanis Bruice and  
ISBN 0-13-196328-7  
by Paula Yurkanis Bruice  
Pearson/Prentice Hall  

Textbook and study guide are essential for passing this course. Purchase them right away.  

Every problem is assigned as homework unless otherwise stated. Read the section "For the Student" carefully. None of the special topics will be covered.  

BULLETIN BOARD  

Handouts, exam keys, etc. will be posted on a bulletin board at the end of the hallway that runs east in the SEB building (Chemistry Department, 2nd floor, across the room 216).  

LECTURES  

Lectures must by necessity be rapidly paced in order to cover all of the material required for chemistry 235. Questions are welcome at any time. In fairness to all, questions of the type "what will be on the exam?" will be entertained only in class so that all students will have the benefit of the response.  
Over the discussion part of lectures, homework problems will be reviewed and worked out in detail. Examinations will be discussed and analyzed. You are encouraged to come with specific questions from lectures, the text, and assigned problems.  

OFFICE HOURS  

Office hours for the instructor (SEB 225) are Tu 12:00 - 1:00 pm, Th 12:00 - 1:00 pm, F 12:00 - 1:00 and 4:30 - 5:30 pm. All students are welcome at any of these. The instructor is also available on weekends (call in advance) but not later than 7:00 pm for any reason whatsoever. Office hours can be rescheduled when in conflict with Supplementary Instruction (if any). Office Phone: 248-370-2248.
CONTENTS OF LECTURES

Chapter 12. Mass Spectrometry, Infrared Spectroscopy and Ultraviolet/Visible Spectroscopy
Chapter 13. NMR Spectroscopy
Chapter 14. Aromaticity. Reactions of Benzene
Chapter 15. Reactions of Substituted Benzenes
Chapter 16. Carbonyl Compounds I: Nucleophilic Acyl Substitution
Chapter 18. Carbonyl Compounds III: Reactions at the α-Carbon
Chapter 19. More About Oxidation-Reduction Reactions
Chapter 20. More About Amines. Heterocyclic Compounds
Chapter 21. Carbohydrates
Chapter 22. Amino Acids, Peptides, and Proteins
Chapter 23. Catalysis
Chapter 26. Lipids
Chapter 27. Nucleosides, Nucleotides, and Nucleic Acids

SCHEDULE OF LECTURES and EXAMINATIONS

Week #1 (1-January); Th lecture 1
Week #2 (7-January); Tu,Th lectures 2-3
Week #3 (14-January); Tu,Th lectures 4-5
Week #4 (21-January); Tu,Th lectures 6-7
Week #5 (28-January); Tu,Th lecture 8 (also half of the lecture after exam)

examination #1 (chapters 1-12-15): Tuesday 30-January

Week #6 (4-February): Tu,Th lectures 9-10
Week #7 (11-February): Tu,Th lectures 11-12
Week #8 (18-February): Tu,Th lectures 13-14

winter recess February 25 – March 4

examination #2 (chapters 1-16-18): Tuesday 6-March

Week #9 (4-March); Tu,Th lecture 15 (also half of the lecture after exam)
Week #10 (11-March); Tu,Th lectures 16-17
Week #11 (18-March); Tu,Th lectures 18-19
Week #12 (25-March); Tu,Th lectures 20-21
Week #13 (1-April); Tu,Th lectures 22-23
Week #14 (8-April); Tu,Th lecture 24 (also half of the lecture after exam)

examination #3 (chapters 1-19-22): Tuesday 10-April

Week #15 (15-April); Tu lecture 25

final examination: Friday, 20-April, 12:00 - 3:00 pm

OTHER EXAMINATION DETAILS

(1) A grade of 0 (zero) is assigned for missed exams. There are no make-up exams. Any circumstances involving illness or deaths must be (a) communicated in advance of the exam, and (b) fully documented, with signed statements from a medical doctor (not a chiropractor) or a county coroner. Voice mail may be left at (248) 370-2248.

(2) Students are responsible for checking their exams for blank or missing pages (the number of pages and problems will be indicated on the face page).

(3) Errors can occur in grading. If you have grading questions on your exam, take the following steps: (a) check your answers vs. those on the key that is posted on the bulletin board; do not write on or mark your exam; (b) meet with the instructor. No regrading will be allowed five working days after the return of an exam. Some graded exams will be copied prior to their return. Any and all incidents of cheating will be referred to Academic Conduct Committee.

(4) ID checks will be required at the examinations.
COURSE GRADING

Each midterm will count as 20% of the course grade, and the final will count as 40% of the course grade. Grades will not be assigned to individual exams, but rankings (distribution curves) will be posted. "Wild Card Rule": The instructors reserve the right to factor "surprise quizzes" into the final grades (up to 15% total).

Grade distributions (%) previously given by the instructor in Chemistry 234 and 235 include:

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Incompletes: The official University policy will be rigorously followed, which means it will be almost impossible for anyone to be given an incomplete.

Withdrawals: The official University policy will be rigorously followed.

The following grading was used for this course in 2005 (points out of 500)

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ASSIGNMENTS

It is expected that the following will be completed in advance of the specified chapter lectures:

Read the chapter, complete all problems within the chapter, complete all additional problems at the end of the chapter.