Oxford College

CHEMISTRY 221 **Dr. Saadein**

Fall 2013

TEXT

"Organic Chemistry"8th edition, L.G. Wade, Jr.,

Solutions Manual, Organic Chemistry, 8th edition, L.G. Wade, Jr.

PURPOSE

Chemistry 221 is designed primarily for chemistry, chemical engineering, biology, pre-medical, pre-dental, pre-pharmacy and pre-veterinarian majors. This course will provide each student with an opportunity to acquire an understanding of:

Classification and nomenclature of organic compounds based on their functional groups,

Prediction of physical and chemical properties of different classes of organic compounds based on their functional groups,

Understanding the basic mechanisms of reactions in organic chemistry, such as addition, elimination or substitution,

Stereochemistry, being able to visualize organic compounds in three dimensions and predict the three dimensional changes of a compound when it goes through a reaction,

EXPECTED RESULTS

Prior to the completion of the course, each student will have an opportunity to demonstrate his/her comprehension of concepts and competence in the topics stated above. Student work submitted as part of this course may be reviewed by Oxford College and Emory College faculty and staff for the purposes of improving instruction and enhancing Emory education.

ATTENDANCE

All students are expected to attend all lecture and laboratory sessions. However, it is recognized that emergencies may arise which will necessitate absences from class. A student should notify the instructor if an absence is due to illness or other emergency. Students are responsible for all material covered in lecture if absent.

You are allowed 2 absences. If you exceed the two absence limit for whatever reason, you will lose 1 point for the next absence (number 3), 2 points for number 4 and 3 points for each additional absence. These points will be deducted from the final course average.

If a student misses an exam and presents the instructor with an acceptable excuse, a make-up exam may be arranged to replace the missed exam. The instructor must be notified by the day of the exam that the student will not be present and must be given the reason for the absence. If the excuse is not considered acceptable, the exam grade will be a zero. It is up to the instructor to make the determination as to whether an excuse is acceptable. In general, illness or an emergency are the only acceptable excuses for missing an exam. Missing an exam also counts as an absence in the course.

NOTICE: Falsification of information regarding absences is a breach of academic integrity and a violation of the Oxford College Honor Code.

PROBLEMS

Chemistry is inherently a problem-oriented course and tests will emphasize problem working; therefore, it is imperative that you become proficient at working problems on each topic. There are problems within each chapter; all of these should be worked and may be checked with the answers in the solutions manual. In addition, problems at the end of each chapter will be assigned for you to work; you may also check these at the back of the textbook or in the study guide. These problems are for your own benefit only; I do not take them up or check them. You should work problems as you encounter the material. You should also attempt each problem before seeking help from the book, your notes, or the solution manual. It is not sufficient to be able to follow how a problem is worked; on a test, you will have to work a problem all the way through, and the only way you will be able to do this is if you have worked numerous practice problems.

EXAM SCHEDULE

Exam I, Friday, September 20
Exam II, Friday, October 18
Exam III, Monday, November 11
Exam IV, Monday, December 9

QUIZZES

You will be given an average of one unannounced quiz per week.

RE-GRADES

You can submit your exam for a re-grade after reviewing them in class. This submission must be in writing. Do not write on your exam if you plan to submit it for re-grading. Exams will be randomly photocopied prior to grading and any alterations made to answers will be reported to the Honor Council

SCHEDULE

First Exam: Chapters 1, 2 and 3
- Chapter 1 - Introduction and Review
- Chapter 2 - Structure and Properties of Organic molecules
- Chapter 3 - Structure and Stereochemistry of Alkanes

Second Exam*: Chapters 4, 5 and 6
- Chapter 4 - The Study of Chemical Reactions
- Chapter 5 - Stereochemistry
- Chapter 6 - Alkyl Halides: Nucleophilic Substitution and Elimination

Third Exam*: Chapters 7, 8 and 9
- Chapter 7 - Structure and Synthesis of Alkenes
- Chapter 8 - Reactions of Alkenes
- Chapter 9 - Alkynes

Fourth Exam*: Chapters 10, 11 and 12
- Chapter 10 - Structure and Synthesis of Alcohols
- Chapter 11 - Reactions of Alcohols
- Chapter 12 - Infrared Spectroscopy and Mass Spectrometry

*All exams are comprehensive; you are responsible for all material covered throughout the semester for each exam.

PREPARATION FOR CLASS

The pace of this course is such that it normally is not sufficient merely to attend class and take notes. You must also make use of your textbook and the solution manual. Before coming to class, you should read the material to be covered; after class, you should read back over this material as well as your class notes.

REVIEW SESSION

Several review sessions will be held before each exam; the date and time will be announced in class. These sessions are optional and voluntary; no new material will be covered. Students normally come to a review session to ask questions that have come up while studying or to see problems worked.

OFFICE HOURS

I will be available to answer your questions on Monday and Wednesday afternoons from 1:00-2:30. You can also make an appointment with me if you cannot see me on the designated office hours

GRADING

Exam	Points	% of course grade
I	100	20%
II	100	20%
III	100	20%
IV	100	20%
Quizzes	100	20%
TOTAL		**100%**

Grades are normally assigned as follows:

95% - 100% A	77% - 79% C+
90% - 94% A-	73% - 76% C
87% - 89% B+	70% - 72% C-
83% - 86% B	67% - 69% D+
80% - 82% B-	60% - 66% D
	Below 60% F

HONOR CODE

It is assumed that all Oxford College students will adhere to the highest standards of academic honesty and will uphold the Oxford College Honor Code.

On exams, you may not use any electronic devices and any material not distributed with the exam itself except for a basic calculator, a molecular model kit and pencils/pens. Any other material you bring into the room must be left at the front of the room. During an examination, you may not give or receive assistance. On assignments for outside class the work is to be your work alone – you may not give or receive any assistance, and you may use only materials authorized. Since absences and tardies can affect your grade, giving false information regarding absences or tardies is a violation of the Honor Code. Note also that the Oxford College Honor Code expects students to report any violations of the Code they have knowledge of.