

Chemistry 120 - Survey of Organic Chemistry
Course Syllabus - Spring Semester 2013
Oxford College of Emory University
Meeting Time: Tu/Th 10:00 am – 11:40 am
Instructor - Dr. Kelly J. Dennison
E-mail: kjdenni@emory.edu
Office – Humanities 205
Office Hours: T/Th 12:00 – 1:00, or by appointment

Text

Chemistry: An Introduction to General, Organic, and Biological Chemistry, Timberlake, 11ed.

PURPOSE

Chemistry 120 is designed primarily for pre-nursing students. Non-science students may also take this course to satisfy their laboratory science general graduation requirement. This course will provide each student with an opportunity to acquire an understanding of:

- Atoms, Periodic Table, Classification of Elements, Electron Configuration of Atoms, Lewis Dot Structures
- Chemical Bonds, Naming Ionic and Covalent Compounds, Lewis Structures of Covalent Compounds, Electronegativity and Polarity
- General Concepts of Acids and Bases, pH and Buffers
- Classification and Nomenclature of Organic Compounds based on their Functional Groups
- Basic Organic Reactions such as Nucleophilic Substitution, Elimination, Addition and Aromatic Substitution and their Mechanisms
- Stereochemistry and its Significance in the Biological World

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 emergency situations 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 and understood numerous practice problems.

EXAM SCHEDULE

Exam I, Thursday, February 7
Exam II, Thursday, February 28
Exam III, Tuesday, April 9
Exam IV, Tuesday, April 25

SCHEDULE*

First Exam: Chapters 3, 4 and 8

Chapter 3 – Atoms

Chapter 4 – Chemical Bonds

Chapter 8 – Acids and Bases

Second Exam: Chapters 10, 11, 12 and 13

Chapter 10 – Intro to Organic Chemistry: Alkanes

Chapter 11 – Unsaturated Hydrocarbons

Chapter 12 – Organic Compounds and Thiols

Third Exam: Chapters 14, 15 and 16

Chapter 13 – Carbohydrates

Chapter 14 – Carboxylic Acids, Esters, Amines, and Amides

Chapter 15 – Lipids

Fourth Exam: Chapters 16, 17 and 18

Chapter 16 – Amino Acids, Proteins, and Enzymes

Chapter 17 – Nucleic Acids and Protein Synthesis

Chapter 18 – Metabolic Pathways and Energy Production

*Subject to change according to the class performance and unpredictable circumstances.

Final Exam

There will be a final exam covering the semester's material which will be given during the regularly scheduled final exam period.

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

A review session will be held before each exam; the date and time for each review session will be announced in class. They will most likely take place on Tuesday or Thursday around 5pm. These sessions are optional and voluntary; no new material will be covered. The purpose of the review session is to ask questions that have come up while studying or to see problems worked—not to ask what material will be covered over an exam.

GRADING**

Assessment	Points	% of course grade
Exam I	100	12.5%
Exam II	100	12.5%
Exam III	100	12.5%
Exam IV	100	12.5%
Quizzes 1, 2, 3, 4 (best 3 out of 4)	100	10%
Lab	100	20%
Final	100	20%
TOTAL		100%

**A low score on an exam may be replaced by the FINAL if the FINAL EXAM score is higher. *An alternative to the above table is to do a paper and presentation. The paper and presentation are not mandatory. However, if the student chooses to do this option, it will be counted as 10% of the total course grade (the rest of the grades in the table will count as 90%). The paper/presentation is a good way to work on a specialized chemistry topic that relates to health and medicine. Several topic areas will be chosen and students may choose one. The topics will be posted later in the semester.*

90% - 92%	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 material not distributed with the exam itself except for calculators 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. Giving false information regarding absences or tardiness is a violation of the Honor Code. On exams, you are not allowed to have any electronic means of communication with you.