

CHEMISTRY 103 70 2: Concepts in Chemistry (4 credits)
CLASS POLICIES Spring 2009

Cedar Crest College

INSTRUCTOR: Dr. Hyacinth Vedage

OFFICE: Miller # 1

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OFFICE HOURS: **M** 1:00 p.m. - 2:00 p.m. **T** 3:30 p.m. – 5:00 p.m.
W 11:00 a.m. - 12:00 nn **R** 3:00 p.m. – 5:00 p.m.
F By Appointment Only

REQUIRED MATERIAL:

- **Lecture Text:** Catherine J. Denniston and Joseph J. Topping, Foundations of General, Organic and Biochemistry, 1st Edition, McGraw- Hill Companies, Inc.,
- **Scientific Calculator**

Meeting Time/Location:

T and R 5:00 - 6:50 a.m. Room: Sci 136

Prerequisites for this course: Basic Math and Algebra Skills

ACADEMIC CALENDAR:

Class Begin	Monday, January 19 (8 a.m.)
Last day to Drop and Add:	Tuesday, January 27 (4 p.m.)
Spring Break	Monday, March 9- Friday, March 13
Break	Friday, April 10– Monday, April 13
Deadline for Course withdrawal	Tuesday, April 14 (4 p.m.)
Classes End	Tuesday, May 5 (10 p.m.) Follow Friday Schedule
Final Exam	May 6- May 7

COURSE DESCRIPTION AND OBJECTIVES:

- to become familiar with topics fundamental to descriptive chemistry as it relates to allied health fields
- to understand chemical bonding, reactions in solution, acid-base theory and gas laws as they relate to physiological processes
- to introduce basic organic chemistry principles and study their application to biochemistry, i.e., to achieve an understanding of organic structure and functional groups, carbohydrates, lipids, proteins, and enzymes

Chemistry is the science that deals with everything around us. Everything one eats, touches and wears has to do with chemistry and chemicals. Even our feelings (happy or sad) are related to chemicals in the brain. My hope is that from this course, the students will gain a more positive understanding and appreciation of the role of chemistry in our daily lives. I also hope that the fears and negative images that some students have about “chemistry and chemicals” will be overcome and these students will begin to even like chemistry.

STUDENT LEARNING OUTCOMES:

1. the student will become familiar with basic chemistry terms and subject matter
2. the student will learn to apply chemical properties and generalization to new problems and situations
3. the student will demonstrate critical thinking and quantitative reasoning skills related to chemistry matter around us
4. the student will enhance the capacity to solve problems by oneself

GRADING POLICY:

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|---|-----|
| • Quizzes (20-30 minutes in length, expect almost every other week) | 60% |
| • Mid-term examination (First half; cumulative) | 20% |
| • Final examination (Second half, cumulative) | 20% |

NOTE: There will be **NO EXTRA CREDIT PROJECTS OR RETAKE TESTS.**

Letter Grade Breakdown:

<u>Letter</u>	<u>Equivalent %</u>
A	93-on
A ⁻	90-92.9
B ⁺	87-89.9
B	83-86.9
B ⁻	80-82.9
C ⁺	77-79.9
C	73-76.9
C ⁻	70-72.9
D ⁺	67-69.9
D	60-66.9

ATTENDANCE: Attendance at lecture is required. If you miss a lecture, you are responsible for the lecture material, any assignments given, announcements, handouts or any other information that was provided in class. Attendance will be taken. Any absence from a quiz or exam requires a valid written excuse from:

- (1) a doctor or dentist, etc or the school nurse in case of illness
or
- (2) the Dean of Students' Office in the case of family emergency

If these procedures are not followed, no make-up will be given and the student will receive a zero for the quiz or test.

TESTS/QUIZES: Quiz dates will be announced in class. Expect a quiz almost every other week. **Mid-Term Test will be on March 19** and will cover chapters 1 through 8. Final exam will cover chapters 10 through 16 and the date will be announced later. You will be getting a study guide for both Mid-Term and Final exams.

HOMEWORK:

Homework will be assigned but will not be collected. *However, occasionally homework will be checked during class, unannounced.* It is essential to the understanding of the course to be able to solve problems. Answers to these problems will be posted on the bulletin board in the Science center next to the entrance to the Oberkotter center. These problems may be included in the quizzes or tests.

IA SESSIONS: There will be several help sessions throughout the week. Schedule for these sessions will be given in class as soon as it is available. Individual Tutoring is also available. Please contact Academic Services (ext. 3484) to reserve a place/time.

TENTATIVE SYLLABUS

WEEK 1

1/20 and 1/22 Methods and Measurements, ch. 1

WEEK 2

1/27 and 1/29 Structure of the Atom and the Periodic Table, ch. 2
Structure and Properties of Ionic and Covalent Compounds, ch. 3

WEEK 3

2/3 and 2/5 Chapter 3 contd.

WEEK 4

2/10 and 2/12 Calculations and the Chemical Equation, Ch. 4

WEEK 5

2/17 and 2/19 Energy, Rate, and Equilibrium, Ch. 5
States of Matter: Gases, Liquids, and Solids, Ch. 6

WEEK 6

2/24 and 2/26 Solutions, Ch. 7

WEEK 7

3/3 and 3/5 Acids and Bases, Ch. 8.

-----Spring BREAK: March 9 - March 13-----

Mid-Term Test: Thursday, March 19 (chapters 1-8)

WEEK 8

3/17 and 3/19 Review for Mid-Term
Mid-Term Test

WEEK 9

3/24 and 3/26 Introduction to Organic Chemistry, Ch. 10
The Unsaturated Hydrocarbons, Ch. 11

WEEK 10

3/31 and 4/2

Oxygen- and Sulfur- Containing Compounds, Ch. 12

WEEK 11

4/7 and 4/9

Carbohydrates, Ch. 14

WEEK 12

4/14 and 4/16

Carboxylic Acids, Esters, Amines, and Amides, Ch. 13

WEEK 13

4/21 and 4/23

Lipids and Their Functions, Ch. 15

WEEK 14

4/28 and 4/30

Protein Structure and Enzymes, Ch. 16
Final Exam Review

NOTE: This is only a tentative schedule. Certain sections from above mentioned chapters will be omitted due to time restrictions. At the beginning of each chapter you will be given a study guide that includes the sections to be covered and other pertinent information regarding the chapter. Study guide will also include homework problems for the chapter.

PHILOSOPHY/CONDUCT/PROTOCOL

Honor Code: I expect each student to abide by the college's honor code (please read discussion in the "Customs Book"). The following statement regarding **classroom protocol** is supported by the college Faculty and Administration.

"Appropriate classroom behavior is implicit in the Cedar Crest College Honor Code. Such behavior is defined and guided by a complete protection for the rights of all students and faculty to a courteous, respectful classroom environment. That environment is free from distractions such as late arrivals, early departures, inappropriate conversations, and any other behaviors that might disrupt instructions and/or compromise students' access to their Cedar Crest College education."

All cellular phones must be in the vibration mode during lecture. No tape recorders can be used during lecture.

Academic Conduct:

As a student at Cedar College, each student shall:

- Only submit your own work.
- Adhere to the rules of acknowledging outside sources as defined by the instructor. Never plagiarize or misrepresent intellectual property.
- Neither seek nor receive aid from another student, converse with one another when inappropriate, nor use material not authorized by the instructor.
- Follow instructions of the professor in any academic situation or environment, including taking of examinations, laboratory procedures, the preparation of papers, properly and respectfully using college facilities and resources, including library and computing resources to ensure that these resources may be effectively shared by all members of the College community.

College Policy Regarding Learning Disability

Students with documented disabilities who may need academic accommodations should discuss these with their professors during the first two weeks of class. Students with disabilities who wish to request accommodations should contact the advising Center.