

Department of Chemistry
Chemistry for the Applied Sciences – CHE 135
SPRING-SUMMER 2012

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1. Course Description

Chemistry for the Applied Science is a four (4) credit laboratory science course for students majoring in a health related science. This is a one semester course that includes both inorganic and organic chemistry content.

2. Course Objectives:

- To acquire foundational knowledge of inorganic and organic chemistry
- To understand the methods of scientific investigation
- To relate basic principles of chemistry to the health related professions
- To gain laboratory experience and explore the scientific method

3. Course Texts:

Lecture: Chemistry: An Introduction to General, Organic and Biological Chemistry, 11th Ed., 2012, Karen Timberlake, Benjamin Cummings.

4. Grade Allocation:

One grade is awarded to encompass both the lecture and laboratory. The lecture contributes 75% of your final grade and the laboratory contributes 25% of the final grade.

The lecture portion of the grade is based upon your performance on four lecture hourly exams and a final exam. If you take all four hourly exams, your lowest hourly exam grade will be dropped. If you miss an hourly exam, that is the exam that is dropped. All students are required to take the comprehensive final exam. There are NO makeup exams.

The laboratory portion of your grade is based upon your laboratory reports. The laboratory reports should be completed and submitted during the laboratory period. You are expected to arrive punctually for the beginning of the lab session. You may not stay for lab if you are more than 10 minutes late.

PLEASE NOTE: If you have a physical, psychological, medical or learning disability, or any other diagnosis that may impact your ability to carry out assigned course work, I urge you to contact the faculty and staff in the Center for Students with Disabilities (CSD) in Building U. Phone number is 516 572-7241, TTY 572-7616. CSD will review your concerns and determine with you what accommodations are necessary and appropriate in a college setting. ALL INFORMATION AND DOCUMENTATION PERTAINING TO PERSONAL DISABILITIES IS CONFIDENTIAL.

CHE 135- LABORATORY SCHEDULE

Lab Manual: Chemistry – An introduction to General Organic and Biological Chemistry, 2nd Edition,
Author: Karen Timberlake – Publisher: Prentice Hall, 2011,
ISBN# 978-0-321-69529-1

Week Number	Experiment	Page
1	CHECK – IN	
2.	Measurement and Significant Figures #1	1
3.	Density and Specific Gravity #2	13
4.	Chemical Reactions and Equations #7	83
5.	Moles and Chemical Formulas #9	113
6.	Testing for Cations and Anions #14	185
7.	Solutions, Colloids and Suspensions #15	199
8.	Acids, Bases, pH and Buffers #16	213
9.	Acid-Base Titration #17	227
10.	Properties of Organic Compounds #D-4	D-47
11.	Reactions of Hydrocarbons #18	241
12.	Aspirin and Other Analgesics #23	303
13.	Peptides and Proteins #31	409
14.	Analysis of Urine #36	477
15.	CHECK OUT	

COURSE OUTLINE

Text Book: Chemistry An Intro to Gen., Organic & Bio Chem- 11th Edition
Author: Timberlake - Publisher: Prentice Hall- ISBN# 978-0-321-69345-7

Week 1 Introduction
 Chapter 1 – Chemistry and Measurements

Week 2 Chapter 1 - Measurements

Week 3 Chapter 2 - Energy and Matter

Week 4 Chapter 3 - Atoms and Elements

Exam 1 - Chapters 1-3

Week 5 Chapter 5 - Chemical Quantities and Reactions

Week 6 Chapter 5 - Chemical Quantities and Reactions

Week 7 Chapter 4 – Compounds and their Bonds

Week 8 Chapter 7 – Solutions

EXAM II – Chapters 5, 4 and 7

Week 9 Chapter 8 - Acids and Bases

Week 10 Chapter 10 - Intro to Organic Chemistry

Week 11 Chapter 11 - Unsaturated Hydrocarbons

Week 12 Chapter 11 – Unsaturated Hydrocarbons

Exam III - Chapters 8. 10 and 11

Week 13 Chapter 12 - Organic Compounds with Oxygen and Sulfur

Week 14 Chapter 14 - Carboxylic Acids, Esters, Amines and Amides

Week 15

Exam IV – Chapter 12 and 14

Final Exam