

**CHE152 GENERAL COLLEGE CHEMISTRY II - COURSE INFORMATION SHEET
Fall 2009**

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II. Textbooks:

Required:

Principles of General Chemistry by Martin S. Silberberg; McGraw Hill
Chemistry II Laboratory Manual, Lanzafame and Henzel.

CHE152 Lecture Notes, Sherman Henzel

Safety Goggles

Scientific Calculator

III. Course Goal:

To continue the work begun in CHE151. Topics that will be covered are, solutions, chemical kinetics, chemical equilibria, acid-base chemistry, thermodynamics, electrochemistry, as well as, topics in descriptive chemistry.

IV. Attendance Policy:

Attendance at all classes and laboratories are mandatory. Three absences may result in a warning from the Dean of Students. Excessive additional absences may result in withdrawal or a failing grade.

V. Examination and Grading Policy:

There will be approximately twenty take home problem sets (quizzes) worth 10 points each. These problem sets will be given out at the end of class and will be due the next class period **BEFORE CLASS BEGINS. The two lowest problem set grades will be dropped.** There will be four hourly exams worth 100 points each. Laboratory material will appear on these exams. In order to be given credit for these lab questions you must attend and finish all labs. Note that labs #1, #2, #5, #7, #11 and #12 will be graded (30 points each). In addition there may be other grading opportunities during the semester. There will be a final exam that will be worth 200 points (counts as two exams). The final exam will be a national American Chemical Society Chemistry (ACS) Exam and will cover both CHE151 and CHE152. All exams are cumulative. **The lowest exam grade will be dropped. The two lowest take home problem sets will be dropped. Laboratory grades are not dropped.**

YOU WILL NOT BE PERMITTED TO MAKE UP A MISSED PROBLEM SET, LAB OR EXAM

You will receive a zero for any missed Problem Sets, Labs or Exams. To compute your final grade, add up your problem set grades (two lowest dropped), exam grades (lowest of six - 4 hourly and 2 finals - dropped) and lab grades (no drops). Divide this number by the total number of possible points and multiply by 100. The result is your course average. 90% and above is an A; 87% to 89% is an A-; 83% to 86% is a B+; 80% to 82% is a B; 77% to 79% is a B-; 73% to 76% is a C+; 70% to 72% is a C; 67% to 69% is a C-; 63% to 66 % is a D+; 60% to 62% is a D; 57% to 59% is a D-; 0% to 56% is an F.

VI. Course Teaching Method:

Lecture notes are to be purchased from the MCC Book Store. The lecture will focus on problem solving and in providing you with the tools that will enable you to work through chemical problems on your own. But this will require a great deal of work on your part. The course schedule gives you the reading and problem assignments. The reading assignment is to be done before the next class. Problems should be completed as soon as possible after the lecture. If you are having trouble with a problem, you should seek me out during one of my office hours. These hours are provided on my class schedule (see last page of this course information sheet).

Learning requires hard work. I will work hard to provide you with the tools necessary to be successful in learning chemistry, but I can not learn for you. You must work hard to complete and understand the reading and problem assignments. It will not be easy, but it will be rewarding. You will, perhaps, work harder than you have ever worked for any other course. If you are willing to put this work into learning chemistry, you will succeed in mastering the subject and in achieving a high grade.

VII. Lecture Outline:

<u>Chapter</u>	<u>Topic</u>
13	The Properties of Solutions
16	Kinetics
17	Equilibrium
18	Acids-Bases Equilibria
19	Ionic Equilibria
20	Thermodynamics
21	Electrochemistry

VIII. Take Home Problem Sets (Quizzes):

The purpose of the Problems sets is to provide you with the means to keep up with the course work and apply your problem solving skills learned in the classroom. It is important that these assignments be done and handed in on time. They are not busy work and they are not to be completed thoughtlessly. As such the following rules apply.

1. Problem sets are due **BEFORE** the start of class. Late problem sets will not be accepted.
2. If you are late to class, the problem set is late and will not be accepted.
3. If you know you will be late, you can e-mail me your answers or phone your answers in to my office with the serial number (Serial# 22009####) and Problem number; **before class begins**. The problem set must be handed in to be graded.
4. All quizzes are unique, no two are alike. Do not copy another student's quiz. Duplicate Serial # quizzes will not be graded.

IX. ID Number:

Your ID number for grades posted on the web site is your Banner ID number (M00... number). The M00 will be dropped.

X. Learning Centers:

Monroe Community College has a number of Learning Centers at Brighton (for example, Accounting, Math, Nursing, Psychology, Writing, the Electronic Learning Center, etc.) and at Damon (for example, the Integrated Learning Center, the Electronic Learning Center, and the Legal Learning Resource Center).

Learning Centers are staffed with instructional personnel and may be equipped with computers to assist students. It is recommended that students use these Learning Centers to get additional assistance with concepts learned in the classroom.

A brochure with details on Learning Centers is available: Bldg. 11, Room 106.

In addition there is a Science Learning Center in room 9-129. Check the schedule on the door for hours.

The best way to get help is to see me during my office hours.

XI. Emergency Closings:

If the College is closed due to inclement weather or some other emergency, all Rochester area radio and television stations will be notified no later than 5:30 a.m. In addition, the homepage on the MCC website (www.monroecc.edu) will display a message indicating the College is closed. Please do not call the College to avoid overloading the telephone lines.

Class cancellation information is available daily on the web or through the telephone. Simply go to the MCC website (www.monroecc.edu) and under the "Quick Links" window on the homepage, click on "Class Cancellations". Additionally, class cancellation information is available by dialing 292-2066, press "1" for the Brighton Campus and "2" for the Damon Campus. If possible, please use the web as there could be delays in the voice recordings based on the number of cancellations.

XII. Cheating:

See 2008/2009 MCC Catalog and Student Handbook page 249-250. The penalty for cheating on any assignment or exam will be a grade of zero (F) on that assignment or exam.

**PLEASE TURN OFF ALL WATCH ALARMS AND CELL PHONES - THEY
DISRUPT THE LECTURE.**

XIII. SUNY Learning Outcomes

1. Calculate solution concentrations: percent concentration (mass/mass, volume/volume and mass/volume), mole fraction, molarity and molality.
2. Determine reaction order from graphical and experimental data and make reaction predictions based on the integrated rate equations.
3. Calculate equilibrium concentrations based on: initial concentrations; initial and final concentrations.
4. Predict the direction of an equilibrium reaction based on changes in reaction conditions (concentrations, volume changes and temperature).
5. Write acid base hydrolysis reactions based on the Bronstead/Lowry theory of acids and bases. Calculate the pH of strong and weak acids and bases. Calculate the pH and changes in pH of acid/base buffer systems.
6. Calculate the solubility of sparingly soluble salts.
7. Perform a series of acid/base titrations.
8. Predict the spontaneity of a chemical process based on Free Energy calculations.
9. Write balanced oxidation/reduction reactions.
10. Demonstrate an understanding of electrolytic cells through cell diagrams and cell voltage calculations based on the Nernst equation.