General Chemistry CHEM 111
Fall 2008

Professor: Nicole Crowder

Office: 339 Jepson

Contact: ncrowder@umw.edu
x1411

Lecture: MWF 2:00-2:50 pm, Jepson 219
Lab: Jepson 214

Office Hours: M 10:00-12:00, 3:00-4:00
T 2:00-3:00
W 3:00-4:00

Required Materials: Chemistry: The Central Science, 11th ed., Brown, LeMay, & Bursten
Lab Coursepack for Sections 1, 2, 3
Lab Notebook with carbonless duplicate pages
Laboratory goggles and lab coat
Calculator with scientific notation and exponential functions
I also **recommend** that you purchase the detailed answer key for red problems in the textbook.

Web Site: This course will make use of the Blackboard course management system. Please check here frequently as materials posted will include course announcements, assignments, and other course materials as necessary.

Content: Chemistry is everywhere, whether you realize it or not; it can be exciting, useful, or dangerous. This course will introduce you to the basis for chemical bonding and chemical reactivity. By the end of the semester you will be able to solve problems relating to various types of chemical reactions and thermodynamics. You will have gained an understanding of the models scientists use to explain atomic and molecular structures, and you will have explored the natures of solids, liquids, and gases. Through the laboratory section of the class, you will gain hands-on experience in conducting experiments dealing with these topics.

Grading:

	Points	Total
In-Class Activities	50	50
Quizzes (best 8 of 10)	25	200
Laboratory	250	250
In-Class Exams (best 3 of 4)	100	300
Final Exam	200	200
		1000

Students with a C average or lower on 10/16 will receive a Mid-Semester Deficiency Report.

In-Class Activities: In-class activities will occur on a regular basis and will include both individual and collaborative efforts. They may occur at any time point in the class period. You are expected to participate in all activities and discussions. If you complete an activity and make a reasonable effort, you will receive full credit. Unexcused absences, tardy arrivals, or failure to participate in activities will detract from your in-class activities score. A missed activity cannot be made up.

Please act respectfully in class of other students and myself (this includes turning your cell phone, etc. off during class time, using laptops only for note-taking purposes, and arriving to class on time).

.

Quizzes: A total of ten 10-15 minute quizzes will be given throughout the term at the beginning of class. Quiz questions will be similar to problems in the text or come from the assigned reading or lecture material. The lowest two quiz grades will be dropped. There will be no make-up quizzes without prior arrangements with me; I will assume that the first two quizzes you miss are the ones that you want to drop. Any subsequent unexcused absences on quiz days will be counted as a zero for that quiz.

Exams: There will be four in-class exams during the semester and a final exam during finals week. In-class exams will emphasize material introduced since the last exam. There will be no make-up exams without prior arrangements with me; I will assume that the first in-class exam you miss is the one that you want to drop. Any subsequent unexcused absences on exam days will be counted as a zero for that exam.

The final exam will be comprehensive and must be taken at the time scheduled by the university: December 12th, 3:30-6:00 pm.

Exam Policies: No cell phones, PDAs, or other personal electronic communication devices will be permitted in the classroom during exams. If you forget and bring one to class, it must be left on the front table during the exam.

If you feel a mistake has been made in the grading of your exam, you must write out what you wish to be re-graded and why (your reasoning is critical) on a separate sheet of paper. This must be turned in to me with the exam no later than one week after the graded exam is returned. Please note that the *entire* exam will be re-graded, and the new score (higher or lower) will be recorded. Exam answers must be in non-erasable ink if you wish to retain the right to request a re-grade.

If you feel there has been a numerical error in calculating your exam score, please bring this to my attention no later than one week after the graded exam is returned.

Laboratory: Detailed information regarding the laboratory component of this course can be found in the lab coursepack.

Attendance: Attendance in lab is mandatory.
Attendance in lecture is highly recommended. Occasionally, material will be presented in lecture that is beyond the scope of your textbook or with a different emphasis than that of the text, and you will be responsible for learning this material even if you are absent.

Regardless of attendance, all assignments are due on the scheduled date. No late assignments will be accepted without my prior consent.

Absences: You should notify me of an expected absence as early as possible.

Make-up exams will not be given except in the event of EXTREMELY extenuating circumstances.
If you must miss a quiz, see me as soon as possible prior to the quiz to arrange a time for a make-up quiz.
If you must miss a lab, a make-up session is usually possible if you can attend one of the other lab sections in the same week as your missed lab.

Practice Problems And Reading: Problems from the textbook will be assigned and posted on Blackboard. These assignments will not be graded per se, but completed problem sets are worth 3 extra points on the corresponding exam grade. To receive these points, the problem sets must be turned in on the specified due dates. These assignments are for your benefit as they will help you master the course material and prepare you for quizzes and exams; doing problems beyond those assigned should also be useful, especially if you find you are having difficulty with the assigned problems. You are allowed to work on these problems with other students, but you may not copy or plagiarize. Remember that you must work alone on quizzes and exams, so it is in your best interest to be sure *you* understand the material.

Reading of the appropriate sections of the textbook should be done *before* coming to class. You will be responsible for this material, *even if it is not covered in lecture.*

Academic Dishonesty: In accordance with the University's Honor Code, all work submitted for grading must be your own and be pledged as such by signing the complete honor pledge at the top of the assignment. Academic dishonesty in any shape or form will not be tolerated. Suspected violations of the Honor Code will be addressed according to the policy established by the Honor Council. Please familiarize yourself with the University's policies of academic dishonesty: ignorance is not an excuse!

Disability Services: The Office of Disability Services has been designated by the University as the primary office to guide, counsel, and assist students with disabilities. You will need to request appropriate accommodations through this office as soon as possible, and then make an appointment with me to discuss your approved accommodation needs. Please bring your accommodation letter with you to the appointment. I will hold any information you share with me in the strictest confidence unless you give me permission otherwise.

If you have allergies to any chemicals or other emergency medical information, please notify me as soon as possible.

How to Succeed in Chem 111:

- Spend about one hour per day on chemistry (reading, reviewing notes, doing problems)
- Attend lecture regularly, sit near the front, and take careful notes
- Use your textbook wisely
  - Really read the "What's Ahead" section at the start of each chapter. Look at what seems familiar and unfamiliar and use it to plan your reading.
  - Go over each "Sample Exercise" in the chapters carefully and then try the "Practice Exercises" that generally follow immediately after the samples.
  - Really give the "Give It Some Thought" questions some thought. The answers are given in the back of the book.
- Review the appropriate sections of the text before coming to class
- Review the appropriate sections of the text after coming to class and organize your notes
- Do the practice problems alone and in groups
- Use the computer and web aids provided with your book
- Come to review sessions prepared with questions
- Seek the instructor's help when needed (office hours, before/after class, email)
- In the event that you require additional help beyond the instructor, you are highly advised to seek peer-tutoring through Academic Services (http://www.umw.edu/acsv/Services/index.htm). The Chemistry Department is also offering walk-in tutoring for this course. The sessions will be held from 6-8 pm in Jepson 4000 on Monday and Thursday evenings beginning Sept. 15th.

Course Schedule: The tentative schedule that follows is how I see the course arranged. It is not set in stone; if there is material that is confusing to the class, we will spend more time on it. The quiz and exam dates will remain as scheduled. If all of the "scheduled" material has not been presented prior to the quiz/exam, the quiz/exam will include only what has been covered.

Date	Topic	Chapter	Assignment
Aug. 25	Introduction, Matter and Measurement	1	
Aug. 27	Matter and Measurement	1	
Aug. 29	Matter and Measurement	1	
Sept. 1	Atoms. Molecules and Ions	2	Q 1
Sept. 3	Atoms, Molecules and Ions	2	
Sept. 5	Atoms, Molecules and Ions	2	
Sept. 8	Stoichiometry	3	Q 2
Sept. 10	Stoichiometry	3	
Sept. 12	Stoichiometry	3	
Sept. 15	Stoichiometry	3	Q 3
Sept. 17	Aqueous Reactions and Solutions	4	
Sept. 19	EXAM 1	1-3	EXAM
Sept. 22	Aqueous Reactions and Solutions	4	
Sept. 24	Aqueous Reactions and Solutions	4	
Sept. 26	Aqueous Reactions and Solutions	4	
Sept. 29	Thermochemistry	5	Q4
Oct. 1	Thermochemistry	5	
Oct. 3	Thermochemistry	5	
Oct. 6	Thermochemistry	5	Q 5
Oct. 8	Electronic Structure of Atoms	6	
Oct. 10	EXAM 2	4-5	EXAM
Oct. 13	Fall Break: No Class	-	
Oct. 15	Electronic Structure of Atoms	6	
Oct. 17	Electronic Structure of Atoms	6	
Oct. 20	Periodic Properties of the Elements	7	Q 6
Oct. 22	Periodic Properties of the Elements	7	
Oct. 24	Chemical Bonding	8	
Oct. 27	Chemical Bonding	8	Q 7
Oct. 29	Chemical Bonding	8	
Oct. 31	Chemical Bonding, Molecular Geometry	8/9	
Nov. 3	Molecular Geometry	9	Q 8
Nov. 5	Molecular Geometry	9	
Nov. 7	Molecular Geometry	9	
Nov. 10	Molecular Geometry	9	Q 9
Nov. 12	Gases	10	
Nov. 14	EXAM 3	6-9	EXAM
Nov. 17	Gases	10	
Nov. 19	Gases	10	
Nov. 21	Intermolecular Forces, Solids & Liquids	11	
Nov. 24	Intermolecular Forces, Solids & Liquids	11	Q 10
Nov. 26	Thanksgiving Break - No Class	-	
Nov. 28	Thanksgiving Break - No Class	-	
Dec. 1	Intermolecular Forces, Solids & Liquids	11	
Dec. 3	EXAM 4	10-11	EXAM
Dec. 5	Review	-	
Dec. 12	FINAL EXAM	1-11	EXAM

Chem 111 Lab Schedule

Week of:	Tuesday	Wednesday	Friday
8/25	Lab Check-in, Safety	Lab Check-in, Safety	Lab Check-in, Safety
9/1	Volumetric Glassware	Volumetric Glassware	Volumetric Glassware
9/8	Alka-Seltzer LegoChem	Alka-Seltzer LegoChem	Alka-Seltzer LegoChem
9/15	Hydrate Empirical Formula	Hydrate Empirical Formula	Hydrate Empirical Formula
9/22	Project 1	Project 1	Project 1
9/29	Project 1	Project 1	Project 1
10/6	Energy of Fuels	Energy of Fuels	Energy of Fuels
10/13	FALL BREAK	Spectroscopy	Spectroscopy
10/20	Spectroscopy	Project 2	Project 2
10/27	Project 2	Project 2	Project 2
11/3	Project 2	Quality Assurance	Quality Assurance
11/10	Quality Assurance	Metals & Acid	Metals & Acid
11/17	Metals & Acid	Intermolecular Forces	Intermolecular Forces
11/24	Intermolecular Forces	THANKS-GIVING BREAK	THANKS-GIVING BREAK
12/5	Check-out **Laboratory Final**	Check-out **Laboratory Final**	Check-out **Laboratory Final**