

Chemistry 151
General Chemistry

Fall 2008

Day & Time:

Lecture: MWRF 8:00 – 8:50

Room: SCF 222

Instructor: Dr. Thomas Archibald

Office: SCI 203

Office Hours: 9:00-11:00 most days

Best is to call or email for an appointment

Phone 693-1252 (O) 626-7385 (M)

Email: tarchib@uvi.edu and mail@thomasarchibald.com

Best to use cell phone and home email

Welcome to general chemistry, an introduction to chemical principles emphasizing atomic and molecular structure. Topics include the principal states of matter, stoichiometry, thermo-chemistry, kinetics, chemical equilibrium, oxidation-reduction, electrochemistry and the chemistry of the representative and transition elements. 4 hours of lecture and 3 hours of laboratory per week.

Prerequisites: Successful completion of ENG 101/RCA 021 or a satisfactory score on SAT for exemption, and MAT 140 or MAT 143 which may be taken concurrently. Pass ACS qualification test in chemistry or successful completion of CHE 120.

My job as your teacher is to act as a resource for you in the same way that your text book and the internet will facilitate your adventure in learning chemistry. I am here for you. You are not here for me. You are the only one who can determine whether the experience of learning about chemistry is a pleasant and profitable one. I will help you get the most value for the money you have paid for this course that I can.

I will teach the course in a similar manner to that done in all major universities in the United States. This will involve formal lectures and tutorial sessions. We will move at fast rate through difficult material. You will need to 1) keep up with reading the textbook 2) do the homework problems especially on the web 3) ask questions when you feel confused and 4) study for the exams.

Textbook: N.J. Tro Chemistry a Molecular Approach, (Pearson, 2008) Available online from booksellers or from the bookstore. Amazon.com price \$160.

Labs: No book. The labs will be posted on blackboard. Be sure to print them out each week before coming to lab.

Blackboard: Be sure to learn how to access blackboard at newblackboard.uvi.edu. My lectures, exams and answers and labs will be updated on blackboard. Announcements as

to schedule changes, exam times, etc. will be posted, so check it often.

Attendance You should attend all lectures, pay attention, and take good notes in class. Class starts at 8:00 a.m. and you are expected to be prompt and on time for class. If you can't get to class on time, then get up earlier and leave for school earlier. I do not take attendance regularly but I can safely say that if you don't attend class, you will have a very hard time passing the course.

Note that if your grade is borderline, your regular and timely attendance will count in your favor. I have a "pet peeve" about people who are chronically late. I reserve the right to lower your grade by one letter if you fall into this category.

Examinations:

There will be a weekly pop quiz of about 5 minutes in length based on assigned reading and homework. Pop quizzes usually are given at the start of class.

There will be a total of 5 examinations, and a final examination. In general each examination will consist of two parts: a multiple-choice section and a problem section. The examinations will test your ability to explain information from the lectures, textbook and the literature. The examinations will be announced well in advance of the date of the examination. You will be allowed to use a calculator and one small 3x5 note card on which you can write constants or pertinent formula.

Your regular exam portion of your grade will consist of the **best 4 of 5 examinations. Attendance for all the exams is mandatory. There will be no makeup exams or quizzes.** If you are ill or have a family emergency you must contact the instructor BEFORE the exam begins with a doctor's note and/or explanation.

Homework will be assigned but will not be collected for grading. You are expected to do any assigned homework; **It is for your own benefit!** You will be asked to work homework problems in class on the blackboard. The examinations will be based on any homework problem found in the text or on the web.

Laboratory Period: Laboratories are scheduled for three hours. Generally, we will work problems in a tutorial session for the first hours and work in the lab for the last two hours. There will only be certain times when the laboratory will be open and available to students. You will be expected to observe safe laboratory practices whenever you are in the laboratory. You must wear approved eye protection whenever you are working in the laboratory. You must not wear contact lenses in the laboratory. Either don't wear them or use prescription glasses when in the laboratory. You will be expected to keep a written record of your progress in the laboratory. The notebook will be periodically submitted for review throughout the semester. All work, data, and calculations must be recorded, in your laboratory notebook, at the time the measurement is performed. All data entries must be in non-erasable ink and must be clearly and legibly written.

Grading

At least 5 regular examinations (55-60%)

(The lowest regular exam grade is dropped)

Pop quizzes and attendance (10%)

1 final exam (20%)

Laboratory (10-15%)

TOTAL: 100%

Grades

90-100% A

80 and <90 B

70 and <80 C

60 and <70 D

< 60 F

If + and – grades are applicable, the top 20% of any grade range will receive + grades and the bottom 20% of any grade range will receive – grades.

Etiquette: Cell Phones and other mobile devices: Turn off all mobile communication devices while in class or set the ringer to vibrate and let voicemail work for you. It is disruptive when someone receives a ringer or tone call, answers a call, places a call or stands and leaves a room to place or answer a call. Please sleep and listen to music at home. If you are not involved in the classroom, you are not present!

Schedule (Exam dates to be adjusted to fit material covered)

WEEK of	CHAPTER	TOPIC
1 – Aug 18	Introduction, placement chapt 1	Chemists and Chemistry
2 – Aug 25	2 and 3	Atoms, Molecules and Ions
3 – Sept 3	3	Stoichiometry
Sept 8	Exam 1 Chapters 1-3	
4 –Sept 8	4	Chemical Reactions
5 –Sept 15	5	Gases
6—Sept 22	6	Equilibria
Sept 22	Exam 2 Chapters 4,5	
7—Sept 29	6	
8—Oct 6	7	Acids and Bases
9 – Oct 13	7	
Exam 3 Chapter 7		
10—Oct 20	8	Aqueous Equilibria
11—Oct 27	8	
Exam 4 8		
12 – Nov 3	9	energy
Nov 3 Holiday		
13 – Nov 10	9-10	Entropy
Nov 11 holiday		
14- Nov 17/24	10	Entropy
15 Dec 1	10 Review Chapt 1-10	
Nov 27,28 holiday		
Exam 5 Chapt 9-10		
Dec 5	Final Exams 8 am	Chapter 1-10

Labs:

<u>Week</u>	<u>Lab</u>	<u>Text Chapter</u>
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Because of lab renovations, schedule will be announced in class.