Chemistry 1211K (AYERS, T/R 5:30-7:45, FALL 2007)

Chemistry encompasses a wide array of phenomena. Photosynthesis, combustion of fossil fuels, and reactions in the atmosphere are just a few examples. The human body may also be considered a chemistry laboratory with a multitude of reactions in progress simultaneously. Fortunately, diverse chemical phenomena are systematically studied using the concepts of structure and energetics. These concepts are a central theme in Chemistry 1211K.

My initial advice for excelling in this course is *take your homework seriously*. Homework assignments will be given regularly during the semester. Approximately 50% of questions on the examinations will closely resemble these assignments. I highly encourage you to establish peer networks where you may solve the assigned homework problems collectively.

Learning Outcomes

Students are expected to acquire a basic understanding of the following topics:

composition of matter
reactions and reaction stoichiometry
properties of gases
thermochemistry
atomic structure
chemical bonding

Students are expected to acquire an awareness of the role of chemistry in everyday life, and learn to apply the scientific method in laboratory activities, collect and analyze scientific data, formulate appropriate conclusions from data analyses, and communicate their findings.

Expectations

This course will no doubt be unlike any course you have taken before. The studio approach relies greatly upon self-study, teamwork, and hard work. Using classroom technology will free up much time during each session to put what you learn into practice. This, of course, is what we strive to do when teaching chemistry. A trade-off to this is that more emphasis will be placed upon you, the student, to do more independent learning outside of class.

Under the new studio format, the class meets for 2 hours and 15 minutes each two days per week for a total of 4.5 hours of class time. Workshops will meet an additional 2 hours per week. As a result, I expect that you will spend more time outside of class working on course material than in "standard" courses. This will be necessary to perform well in the class. Again, group study is a method I want to promote strongly in helping you succeed in this course. Peer to peer teaching and learning is a very effective way to study the material.

I hope that this course will ultimately result in an enjoyable learning experience.

General Information

Instructor	Timothy M. Ayers Phone (678) 839 - 6019 Office: 2-229 TLC email: tayers@westga.edu
Class time	**T, R** 5:30 - 7:45 PM
Textbook	Chemistry: The Molecular Nature of Matter and Change by Martin Silberberg, 4th edition
Office Hours	**Mondays** 10-2 PM **Tuesdays** 4:30 – 5:30 PM **Wednesdays** 10-11 AM **Thursdays** 4:30-5:30 PM **Fridays** 10-12 AM Additional office hours, by appointment
Attendance	**Required. If a student misses four or more activities, he or she will be awarded a grade of F for the course.**

Correspondence: Please use your **myUWG** e-mail for contact purposes. E-mails from other service providers (gmail, aol, hotmail) will be ignored.

Quizzes and Examinations

In class examinations will be given on the following days**:**

Tuesday, September 11

Thursday, October 4

Tuesday, October 6

Tuesday, December 4

The laboratory final examination will be given in class on Thursday, November 29.

The final examination will be given on Tuesday, December 11th during 5:30 – 7:30 pm. It is based on all the topics covered during the semester. It consists of multiple-choice questions, and is prepared by the American Chemical Society (ACS).

No make up quizzes or exams will be given. Furthermore, no work completed in a previous course will be accepted in this course. In case of an illness or a true emergency, a student may be excused from one in class examination, provided the instructor is contacted prior to the examination. If excused, the score for this examination will be the average of all in class examinations.

Workshop Chemistry

Workshops (CHEM 1001) are an important part of CHEM 1211K. In addition to regularly scheduled studio sessions, you **must attend** a workshop that meets once a week outside of class to discuss chemistry problems and improve your understanding of the material.

Workshops are similar to study groups, with two main differences.

1. Each week's workshop will go over a set of assigned questions. Vouchers for the workbook containing these problems can be purchased in the bookstore. **You have until**

Labor Day to purchase these vouchers. Once purchased, you may then go to the chemistry office and obtain the workbook.

2. Each workshop will be led by a student leader who has taken the course previously and who has been trained for undertaking this responsibility. The leader will act more as a facilitator than as a tutor. The purpose of workshops is to build confidence in your own ability to do chemistry problem-solving. Each workshop will be scheduled for a two-hour block of time. Although some workshops will not last the whole two hours, you should plan on putting this amount of time into each workshop.

Why should you want to commit to two more hours spent on chemistry each week in addition to your time in class? Here are some good reasons.

- You should plan, on average, to spend at least six hours a week outside of lecture and lab studying chemistry. The workshop can be two of them.
- Working with other students and with the leader can be more productive than doing all of your studying alone. In the structured workshop setting other students can help you understand something you may have missed during the lecture. Futhermore, as you explain ideas and principles to someone else it becomes more clear in your own mind.
- Workshops at other institutions have found that students participating perform significantly better on chemistry exams than those not attending workshops.
- **It directly affects your grade.** The workshop portion of your grade will be based on:

1. Attendance. Don't arrive late; don't leave early.

2. Participation in group efforts to solve problems.

3. Preparation. Practice problems should have been solved, or at least attempted, before the relevant workshop.

4. Attitude. This style of grading is very unique. Please keep in mind that you are not judged on actual right answers, but the effort you put forth.

Grades

Your grade will be calculated based on the following components:

In-class examinations (4 @ 100 points each)	**400 points**
ACS Final	**100 points**
Activities/Labs	**100 points**
Laboratory Final	**40 points**
Workshops	**120 points**
Quizzes	**40 points**
TOTAL	**800 points**

Letter grades

Score	**Grade**
90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
0% - 60%	F

Extra Credit Opportunities

- There are no extra credit opportunities for this course. With labs, quizzes, and workshop present as a built in buffer, there is no need to offer extra credit. Please do not write or call requesting extra credit opportunities

Classroom Etiquette

Please turn off your cell phones or pagers before the beginning of class. Be considerate of your neighbor and the fact that he/she has spent a great deal of money to enroll in this course and learn the material.

There will be no eating or drinking in this classroom, since it is also considered a laboratory environment.

Goggles will be required during all laboratory activities. You may purchase a pair of these from the ACS club or obtain a pair which may be loaned to you for the session.

Policy on cheating

If an individual cheats on a quiz, examination or lab report for the first time, he/she will obtain a score of zero for that particular quiz, examination or lab report. If an individual is caught cheating a second time during the semester, he/she will receive a grade of F for the entire course.