



Principles of Chemistry I- Honor

CHEM 1211K-25H

Fall 2006

Dr. Megumi Fujita
Office: TLC 2122
(Research Lab TLC 2104)
mfujita@westga.edu
Tel: 678-839-6024

General Information

Class Time M & W 1:25pm – 3:55pm
Classroom TLC 2105 (Lab TLC 3104)
Office Hours M 10-11&4-5, T 10-11&2-4, W 10-11, Th 2-4, F 1-3. I will be happy to see you at other times by appointment.

Required Course Materials

- **Textbook:** *Chemistry - The Molecular Nature of Matter and Change*, 4th edition, Silberberg, McGraw-Hill, 2006.
plus the **Student Solutions Manual** and **Student Study Guide** that come with the textbook.
- **Scientific calculator** (see policy on p.6)
- **Safety goggles** (can be purchased during the first labs- \$5).

Course Description

This is the first course in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. Topics to be covered include composition of matter, atomic structure, stoichiometry, periodic relations and nomenclature. Laboratory activities will include qualitative and quantitative experiments.

This course satisfies the university core area D, Laboratory Science Course for science and non-science majors. Good algebra skills and a working knowledge of high school chemistry are assumed.

The class meets for 2 hours and 30 minutes each 2 days per week. Lectures and laboratory activities are integrated in this total of 5 hours/week.

Learning Outcomes

Students will demonstrate an understanding of the basic concepts of chemistry given above, and an awareness of the role of chemistry in everyday life. Students will increase proficiency in laboratory techniques, learn to collect and analyze scientific data, and to formulate appropriate conclusions from data analysis. Students will demonstrate superior oral and written communication skills to present scientific ideas.

Study Skills for Success

The best way to be successful in this course is to **attend classes, take notes in class, read the textbook, and work through homework problems, on a REGULAR BASIS.** Before each exam, it is highly recommended to do the following: **make a summary note of key terms and concepts to remember, work on problems you could not answer previously, and use help sessions and office hours to ask questions.** Keep track of the end-of-chapter problems that give you the most difficulty, and try similar problems for additional practice and review. **Ask questions frequently** in class, workshop and the office hours.

Special Needs

If any of you have special needs, please meet with me soon in my office. I will find ways to best assist your learning.

Laboratory Activities

Most class meetings consist of lecture, problem-solving, and laboratory activities. To do most lab activities we will move to **TLC 3104.** You will form a group of two and share one station. Labs need to be completed efficiently and in the allotted time.

Laboratory grades are worth 25% of your entire grade and will be based on attendance, completion of the activity, clean-up, and report. You will earn a zero out of hundred if you are absent. No makeup labs are allowed. Lab report due is typically the beginning of the next class period unless otherwise instructed. Points will be deducted for late submission. You will earn a grade of F for the entire course if you miss more than one fourth of in-class activities.

Whenever the lab handout is provided in advance of class, you will be expected to come to class having read this and completed the **prelab assignments.** Some directions may be given on the same day. For all labs, **each student must submit their own individual (unique) lab report** even though the experiment is done with a partner. Data is not to be shared without the instructor's permission. A few of the experiments may require you to complete a typed formal lab report.

Please see Laboratory Instruction handout for more information.

Quizzes

Unannounced in-class quizzes (10 to 15 minutes each) will be given occasionally. Questions may be asked from homework questions previously assigned, or any materials covered previously. The lowest quiz will be dropped. No make-up quizzes will be given. Quiz grades are worth 15% of your entire grade.

Homework from Textbook

Homework problems will be assigned from the textbook on a regular basis. It is expected that you will attempt to solve all the assigned problems. Try the problem first without any reference. If you cannot find an answer, consult with the Student Solutions Manual to find helpful hints, with your textbook and course notes, and with your instructor. Many of the assigned problems will resemble exam and quiz problems. If you clearly understand the problems and can solve them without referring to the Solution Manual, you will be successful on exams.

Poster Project

Two lab activity periods in November will be used for poster presentations. You will select one chemical substance that has an impact to our lives, conduct in-depth research on the substance, and present it in the form of a poster and a 5 minute presentation.

- Choose a substance that has scientific, medical, environmental, industrial, and/or economical importance/impact (positive or negative) in our lives. The same substance should not be selected by more than one student. Priority is given on those who got an approval earlier, so select one as soon as possible. Report your choice of substance by **Wednesday, August 30**.
- Gather at least three literature resources (newspaper articles, books, journal articles, webpages, etc) in the form of hard copies. Turn them in by **Wednesday, September 13**.
- Turn in the outline of your poster contents by **Monday, October 16**. The outline must reflect your in-depth research of the selected substance.
- Create your poster. The poster presentations are scheduled on **Monday, November 6 and Wednesday November 8**. Your date will be assigned about a week ahead of time.
- The presentations will be graded based on your understanding of the topic, the depth of the research, and the overall clarity and effectiveness of your presentation.

Examinations

There will be **four in-class exams** and a **comprehensive final exam** during the semester. Everything covered in class can be asked in the exams, including laboratory activities. No exams will be dropped. The exam dates are published below and will not be postponed. No makeup exam will be given. Please arrive on time, as no extra time will be given if you arrive late.

Each exam will be closed book. You will be permitted to have a scientific calculator (see policy below) and a pencil. You will be provided a periodic table, conversion factors and constants, and scratch paper. Scantron sheets will be provided if necessary. Everything that has been taught since the beginning of the class is supposed to be known at any point of time.

Exam grades will be based on your ability to DEMONSTRATE full understanding of the material. Some questions will be multiple choice, while some questions will be short answer (for which full credit given only if you SHOW ALL YOUR WORK).

The standardized examination from the American Chemical Society will serve as the final exam. It consists of multiple-choice questions. If there is a conflict with the final exam time, you must provide me the written authorization from the Dean of Arts & Sciences to move your final exam time. This note should be delivered to me at least two weeks prior to the scheduled final exam time.

Grades

Exams (4 in-class and a final, 100 pts each)	500 pts
Quizzes	150 pts
Project	100 pts
<u>Laboratory Activities</u>	<u>250 pts</u>
Total	1,000 pts

Course Percentage	Letter Grade
90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
0% - 59%	F

Extra credit opportunities may come up and will be announced in class.

Policy on Scientific Calculators

Remember to bring a calculator to every class. During exams and quizzes, only non-programmable calculators are allowed on the table. All other devices (including cell phones) must be turned off and stored in your bags. If you wish to use a programmable calculator, you must delete all the memories before exam or quiz.

Policy on Electronic Devices

All cell phones and other electronic devices (incl. music devices) must be turned off during the entire class period and keep out of sight, except calculators. If your cell

phone rings during class or you are found using any other electronic device, the instructor will answer the call and keep the device.

Academic Integrity and Honesty

We value academic integrity and honesty very highly. Not only does academic honesty preserve the integrity of both the student and the institution, but it is also essential in gaining a true education.

We do not permit any forms of dishonesty or deception that unfairly, improperly or illegally enhance a grade on an individual assignment or a course grade. Each incidence of academic dishonesty is subject to serious penalties, including (but not limited to) failing the assignment and failing the course.

Please refer to Student Handbook p.20 and Undergraduate Catalog p.103 for the university's honor code and definitions of cheating, fabrication and plagiarism.

Classroom Behavior Guideline

You are expected to be civil. (Reference: "Choosing Civility" by P. M. Forni)

Official Communication Medium: MyUWG

Official communication method will be via campus e-mail (MyUWG). It is your responsibility to check your my.westga.edu e-mail account on a regular basis. E-mails from other accounts (e.g. gmail, hotmail, yahoo mail etc) may not be responded.

Grades for exams and assignments will be posted on WebCT Vista.

Tentative Schedule

<i>Date Class#</i>	<i>Monday</i>	<i>Class#</i>	<i>Wednesday</i>
8/14 1	Ch 1	8/16 2	Ch 1
8/21 3	Ch 2	8/23 4	Ch 2
8/28 5	Ch 3	8/30 6	Ch 3, Review Poster Topic Due
	September 4 – NO CLASS	9/6 7	EXAM 1
9/11 8	Ch 3	9/13 9	Ch 3-4 Three Literature Resources Due
9/18 10	Ch 4	9/20 11	Ch 4
9/25 12	Ch 5	9/27 13	Ch 5
10/2 14	EXAM 2	10/4 15	Ch 5
	October 9 – NO CLASS	10/11 16	Ch 6
10/16 17	Ch 6 Poster Outline Due	10/18 18	Ch 6
10/23 19	Ch 7	10/25 20	Ch 7
10/30 21	EXAM 3	11/1 22	Ch 8
11/6 23	Ch 8 Poster Presentation (1)	11/8 24	Ch 9 Poster Presentation (2)
11/13 25	Ch 9	11/15 26	Ch 9-10
11/20 27	Ch 10		November 22 – NO CLASS
11/27 28	Ch10, review	11/29 29	EXAM 4
		12/6 (W)	COMPREHENSIVE FINAL EXAM – 2-4pm