

CHEM 1407 INTRODUCTORY CHEMISTRY

Fall 2014

Time TR 10:30AM-11:50AM

Location Union Building 109

Instructor: XiuJun James Li, Ph.D.

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Office: CCSB 2.0112

Office hours: by appointment

TEXTBOOK AND OTHER STUDY MATERIAL

General, Organic and Biological Chemistry: Structures of Life (UTEP edition) by Timberlake.
Additional reference material might be distributed during the semester.

Other references: **Chemical Principles**, by Steven S. Zumdahl.

COURSE PURPOSE

This is the first semester of Introductory Chemistry, an introduction to chemistry for nonmajors and prehealth students. The laboratory is an integral part of the course and must be taken at the same time. Math 3011, Intermediate Algebra, is a prerequisite that may be taken concurrently.

COURSE CONTENT OUTLINE

Chapters 1 - 10 of the text will be covered but not all of the topics will receive the same emphasis. After passing this course you should be able to use the concepts of chemical nomenclature, atomic and molecular theory, stoichiometry, gas laws, pH, chemical equilibrium, kinetic theory, oxidation/reduction reactions and nuclear chemistry. You should be able to think analytically and critically in solving fundamental problems. A basic skill in algebra is essential.

- Chapter 1: Measurements
- Chapter 2: Energy and matter
- Chapter 3: Atoms and elements
- Chapter 4: Nuclear chemistry
- Chapter 5: Compounds and their bonds
- Chapter 6: Chemical reactions and quantities
- Chapter 7: Gases
- Chapter 8: Solutions
- Chapter 9: Chemical equilibrium
- Chapter 10: Acids and bases

LEARNING OUTCOMES AND ASSESSMENTS

The learning outcomes of this course are to understand these concepts and acquire the skills to use them to solve problems. Your mastery of these outcomes will be assessed by your performance on exams and homework.

EXAMS

There will be four unit exams and a final exam. There will be no makeup exams. **You cannot pass the course without taking the Final Exam.** You will need a calculator for these exams, preferably one with a logarithm key but no other electronic equipment, including cell phones, iPods or laptops are permitted in the exam. If you have them with you, they must be kept in a bag and turned off. Caps and hats cannot be worn during exams.

Short quizzes consisting of a single question will be administered in each class period. **Online homework on Mastering Chemistry** will be assigned for each chapter. Of the four scores of the four unit tests, the three highest will be used to calculate your final grade (you can drop the lowest one.). The final exam will count 30% and the laboratory will count 10% of the course grade.

Evaluations:

- Best three of four exam scores and homework/quiz score: 60%
- Final Exam (Comprehensive): 30 %
- Laboratory: 10 %
- Attendance: 4%

Breakdown:

100%	-	89%	-	79%	-	70%	-	60%	-	0%
		A		B		C		D		F

There may be a curve but only if the final class average falls much below 70%.

MASTERING CHEMISTRY

The procedure for accessing the online Mastering Chemistry to do the homework is described in other materials to be provided. Both pages give the same information but in somewhat different style. The course ID is **MCL127153**. It is important to get an early start on the homework. **Your work will be identified by your student identification number. So be sure it is correct.**

DROP DEADLINE & INCOMPLETES

According to university policy, students may attempt a course at most three times, including W's. A grade of C or better cannot be improved by retaking the course. **Grades of incomplete are given rarely and only in the most unusual circumstances. if an incomplete is not changed within one year, it automatically becomes an F. College of Science policy requires that a student sign a contract agreeing to complete the necessary course work by a specific date in order to receive a grade of incomplete.**

CLASSROOM ETIQUETTE

Anything that detracts from the classroom experience should be avoided. Cell phones and beepers must be turned off at the beginning of the period. You may tape the lecture if you ask permission first. Smoking is illegal in university buildings. Eating and drinking is not permitted in class. Tardiness is distracting and is discouraged. Casual coming and going should be avoided. Children should not be

brought to the classroom. **Unless there is an emergency, leaving early is permitted only with consent of the instructor which must be obtained before class. Students should not talk to each other while the instructor is lecturing or while other students are asking questions. Cell phones must be off during class.** The Golden Rule is the best guide. If in doubt, check with the instructor.

ELECTRONIC DEVICES

Electronic devices such as cell phones, notepad and laptop computers should not be used during lectures except for participation in class and must not be used during exams except where explicitly permitted.

E-mail correspondence:

The **subject lines** of all emails regarding this course to the instructor should include "**Chem 1407**". Otherwise, your email might not be addressed or become missing.

Academic honesty:

Materials (written or otherwise) submitted to fulfill academic requirements must represent a student's own efforts. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Violations will be taken seriously and will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

Absence:

Doctor note could be accepted for the absence of class. However, the instructor must be informed of this ahead of time for all exams, quizzes and other in-class tests. Generally, any missing exams, quizzes, and other in-class tests will not be arranged for the student to make up.

MILITARY SERVICE

If you are in the military and are called to service and/or training during the course of the semester, you should inform your professor as soon as possible.

Students with Disabilities

If you have or believe you have a disability, you may wish to self-identify. You can do so by providing documentation to the Office of disabled Student Services located in Union E Room 203. Students who have been designated as disabled must reactivate their standing with the Office of Disabled Student Services on a yearly basis. Failure to report to this office will place a student on the inactive list and nullify benefits received. If you have a condition which may affect your ability to exit safely from the premises in an emergency or which may cause an emergency during class, you are encouraged to discuss this in confidence with the instructor and/or the director of Disabled Student Services. You may call 747-5148 for general information about the Americans with Disabilities Act (ADA).

Syllabus is subject to change. Any changes will be announced in class, or by email, or posted on the course Blackboard site during the semester. Students are solely responsible for getting the most updated information. Updated version will be uploaded to Blackboard.

Register for MasteringChemistry in U.S. or Canada

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Books are listed alphabetically by the author's last name.

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Timberlake
Chemistry: An Introduction to General, Organic, and Biological Chemistry, 11/e

Timberlake
General, Organic, and Biological Chemistry: Structures of Life, 4/e

Tinoco
Physical Chemistry: Principles and Applications in Biological Sciences, 5/e

Tro
Chemistry: A Molecular Approach, 3/e

You selected:

Timberlake, General, Organic, and Biological Chemistry: Structures of Life, 4/e