

Syllabus General Chemistry 1305 (CRN 21373) Spring 2016

TR 9:00 am - 10:20 am

Location: UGLC 126

Stipulations in this syllabus are subject to modification and correction during the semester. All modifications (if any) will be discussed in class or posted on the course Blackboard site.

I. Instructors:

Dr. Wen-Yee Lee

Office: CCSB 2.0110

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Email: wylee@utep.edu

Office Hours: TR 10: 30 am – 11: 30 am or by appointment

II. Learning Goals:

This is the first part of General Chemistry for scientists, engineers and pre-medical students. The students in the class will gain fundamental knowledge in atomic and molecular structure, nomenclature, physical and chemical changes of matter, chemical reactivity, chemical bonding, thermochemistry and the properties of gases. Specifically, students will be able to

- Explain chemical and physical processes based on macroscopic properties and at the molecular level.
- Classify matter by its state and bonding behavior using the Periodic Table as a reference.
- Solve quantitative chemistry problems and demonstrate reasoning clearly and completely.
- Integrate multiple ideas in the problem solving process.

Prerequisites: In order to be enrolled in Chemistry 1305, you should have:

- Passed or be concurrently enrolled in Math 1508 or
- Have achieved an SAT Math score of 600 or better.

Student Major:

The CHEM 1305 - 1306 sequence is designed for students who are majoring in a field of science or engineering.

Students majoring in other disciplines may prefer to take the CHEM 4107 - 4108 sequence which contains more descriptive and less quantitative material.

III. Course Information:

This lecture course has **two** components that all students **must** register for **(1) CHEM 1305 Lecture and (2) CHEM 1305 Lecture Workshop**. The CRN for the workshops are:

21445, 21446, 21447, 21448, 21450, 21451, 21452, 21453, 21454, 21455, 21456, 21457, 21458, 21459, 21460, 21461, 21462, 21463, 21464, 21465, 21466, 22269, 22537, 22538, 22568, 22869, 22870, 22875, 22876, 23264, 24334.

- Laboratory CHEM 1105 is a separate co-requisite course, in which students shall also register. Not like the Workshop which is an integral part of CHEM 1305, the Lab, CHEM 1105, is a separate course from CHEM 1305. The content for CHEM 1105 laboratory may not be completely coincided with the materials covered in lectures. The laboratory is highly recommended for all students regardless of major.
- If you are interested in honors credit, please take the honors section.

Required Course Materials:

1. Textbook:
Chemistry, OpenStax College, Rice University. It is a free e-book. Download for free at <http://cnx.org/content/col11760/latest/>."
2. "General Chemistry by Exploration: Resource Book for Peer-Led Team Learning First Semester", It is only available in the UTEP campus bookstore and the alternative bookstore on Mesa St.
3. TopHat: This is an in-class platform that will be used for attendance and quizzes. Instructions on how to register for the system will be given in class and on blackboard.

Reference Course Materials:

Chemistry, by Raymond Chang, 10th Edition (or newer or older version), McGraw-Hill Science.

Workshop:

- Workshop is a required component of CHEM 1305. Every student enrolled in a 1305 lecture section must also be co-enrolled in a Workshop section.
- Each Workshop meets for a two-hour period, and is instructed by a Peer Leader (PL). The Workshop format allows the PLs to use active learning to enhance understanding of the chemical principles discussed in class. It also provides opportunities for hands-on exposure to qualitative and descriptive chemistry activities (Explorations). Goggles must be worn during ALL chemical Explorations.
- Workshop Office Hour: PLs have office hour daily from 10 am to 4 pm. The actual office hour and location will be announced in the workshop. Though each PL has specific office hours each week, you can consult with any PL during her or his office hours.

Other Resources:

1. **Blackboard:** Announcements and class notes will be made using Blackboard.
Accessing Blackboard
 - You can access Blackboard via your myUTEP page but you will need your email username and password. If you don't know your email username and password, call the HELP desk to request them.
 - Go to My.UTEP.edu and log in
 - Click on Blackboard — it's on the menu bar at the top of the page.
2. **Secretarial Services**

The office of Chemistry Department is located in the new Chemistry and Computer Science Building CCSB 2.0704. Office hours are from 8:00 am to 12noon and the 1:00 PM - 5:00 PM; **the office is closed for lunch (12 noon - 1:00 PM).**

Instructor Expectations:

- Students should attend all lectures and workshops, and complete homework assignment. It is the students' responsibility to finish the work and turn in to their PLs by due dates.
- Students will read the chapters covered in class and consult with the professors or PLs for any questions.

Course Withdrawal Policy

Classes dropped prior to the official census date will be deleted from the student's semester record. After this date, the University permits any student to drop with an automatic "W" by the course dropping deadline. After this date students who withdraw must receive grades of "F".

The UTEP Spring 2016 drop deadline is April 1, 2016. The College of Science will remain aligned with the University and not approve any drop requests after that date.

All grades of Incomplete must be accompanied by an Incomplete Contract that has been signed by the instructor of record, student, departmental chair, and the dean. Although UTEP will allow a maximum of one year to complete this contract, the College of Science requests it be limited to one month based upon completion data. A grade of Incomplete is only used in extraordinary circumstances confined to a limited event such as a missed exam, project, or lab. If the student has missed a significant amount of work (e.g. multiple assignments or tasks), a grade of Incomplete is not appropriate or warranted.

IV. Examinations:

- CHEM 1305 examination questions are designed to test the understanding of basic concepts, and familiarity with chemical nomenclature, usage and calculations. Students are encouraged to learn the process involved in problem solving rather than memorization of specific facts.
- Four one-hour examinations and a Final Exam are scheduled (see Section VIII for exam dates). Only the three highest grades will count towards the grade.
- ACS Standardized Exam will be used for the final exam. More details will be announced during the semester.
- **No makeup of examinations will be provided** unless approved by the instructor prior to the exams. Valid absences for University related activities (e.g. out-of-town research presentations, sporting events) must be arranged **prior** to the date of the respective examination.
- During the exam:
 - Bring your student ID to all exams for verification.
 - **NO CELL PHONES OR OTHER ELECTRONIC DEVICES CAN BE USED DURING EXAMINATIONS.**

- No caps or hats may be worn during examinations. Bring a photo identification card to all examinations. ID will be checked during or when turning in the exam.
- **Do not** bring programmable calculators (i.e. a calculator not capable of retaining equations or words) to the hour examinations and the final examination. You can purchase a satisfactory calculator which can perform logarithmic and exponential operations (needed for Chem. 1306) for less than \$10 at many stores.

V. 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.

VI. Students with Disabilities:

Student with a disability can contact Disabled Student Services to take exams with appropriate accommodations. The office is located in Room 106 Union East Building and can be contacted at (915) 747-5148 Voice/TTY, (915) 747-8712 Fax or at dss@utep.edu.

VII. Evaluation: (Evaluation is subject to revision.)

1)	Regular Exams	400 pts
	There will be <u>four Exam</u> scheduled.	
2)	Final Exam (ACS Standardized Exam)	200 pts
3)	Quizzes:	200 pts
	▪ In class Quizzes (100 pts)	
	▪ Online Quizzes- on Blackboard (100 pts)	
4)	Homework:	100 pts
	(Homework are in the Workshop Resource Book)	
5)	Workshop:	100 pts
	(Grading criteria will be discussed in the workshops)	
6)	Attendance	50 pts

TOTAL 1050 pts

Total grade points will be rounded to the closest integer. Expected grade breakdowns are:

A: >=898 B: 798-897 C: 695 – 797 D: 595 – 694 F: < 595

VIII. Lecture Schedule (subject to change)

Week	Chapter (Based on OpenStax)	Homework (PLTL Worksheet)	Note
1. (1/18-1/22)	Introduction/1. Essential Ideas	Introduction	1/18 MLK Jr. Day, University Closed.
2. (1/25-1/29)	1. /2. Atoms, Molecules, and Ions	Module 1	
3. (2/1-2/5)	2. Atoms, Molecules, and Ions	Module 2	2/3 Census Day
4. (2/8-2/12)	Exam 1, Chapters 1, 2 2/9 (Tuesday) 3. Composition of Substances and Solutions	Module 3	2/12, Pass/Fail Grade Option Selection Deadline
5. (2/15-2/19)	3. Composition of Substances and Solutions	Module 3	
6. (2/22-2/26)	4. Stoichiometry of Chemical Reactions	Module 4	
7. (2/29-3/4)	4. Stoichiometry of Chemical Reactions	Module 5	
8. (3/7-3/11)	Spring Break, No Classes		
9. (3/14-3/18)	Exam 2, Chapters 3,4 3/15 (Tuesday) 9.1 – 9.3 Gases	Module 6	3/16 Freshmen mid-term grades due to the records office
10. (3/21-3/25)	5. Thermochemistry	Module 7	3/21, Mid-term grades via e-mail 3/25 Cesar Chavez Day/Spring Study Day, No Class
11. (3/28-4/1)	6. Electronic Structure and Periodic Properties of Elements	Module 8	4/1 Course drop deadline
12. (4/4-4/8)	6. Electronic Structure and Periodic Properties of Elements	Module 9	
13. (4/11-4/15)	Exam 3, Chapters 5,6,9 4/12 (Tuesday) 7. Chemical Bonding and Molecular Geometry	Module 10	
14. (4/18-4/22)	7. Chemical Bonding and Molecular Geometry	Module 12	
15. (4/25-4/29)	8. Advanced Theories of Covalent Bonding	Module 13	
16. (5/2-5/6)	8. Advanced Theories of Covalent Bonding Exam 4, Chapter 7,8 5/5 (Thursday)	Module 14	5/5, Completely Withdraw from all courses 5/6, Dead Day
17.	Final Exam on Tuesday, 7:00 am – 9:45 am, 5/10, (actual room assignment will be announced in class/ blackboard)		