

Syllabus General Chemistry 1305 (CRN 11298) Fall 2018

MWF 8:30 am - 9:20 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. Juan C. Noveron

Office: CCSB 2.042

Phone: 747-7572

Email: jcnoveron@utep.edu

Office Hours: MW 10:00 am – 11:20 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

- Describe, explain and model chemical and physical processes at the molecular level in order to explain macroscopic properties.
- 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**.

Laboratory CHEM 1105 is a separate co-requisite course, in which students must also be enrolled.

If you are interested in honors credit, please take the honors section or discuss this with the instructor.

Required Course Materials:

- **Chemistry** (Free by Openstax.org, download provided in Blackboard)
- **First Semester General Chemistry by Exploration** – Resources for PLTL Workshop – Fall 2018 (available at the UTEP bookstore)
- **5 Apperson** brand answer sheet forms
- **iClicker Reef App** (*Free to UTEP students*) <https://app.reef-education.com> Login as a student and look for our class as 'General Chemistry I'

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. The Workshop format allows the Peer Leaders to use active learning techniques 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 hour and location of the office hours will be announced in the workshop. Though each PL has specific office hours each week, you may consult with any PL during her or his office hours.

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 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 (Sep 12, 2018) will be deleted from the student's semester record. After this date, but only before the official course drop deadline of 5:00 PM Nov 2, 2018, the University permits any student to drop with an automatic "W". **After Nov 2, 2018, students who need to withdraw must receive grades of "F", unless there is a medical situation that merits applying for an "incomplete" – consult with the instructor about this option.**

The UTEP Fall 2018 drop deadline is Nov, 2018. The College of Science will remain aligned with the University policy and NOT approve any drop requests after that date.

All grades of Incomplete (semester grade) must be accompanied by an Incomplete Contract that has been signed by the instructor of record, student, departmental chair, and the Dean. The College of Science requires Incomplete Contracts be limited to one month. A grade of Incomplete is only used in extraordinary circumstances. 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. Laboratories

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.

V. 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 IX for exam dates). All exam 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 MAY 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 for less than \$10 at many stores.

VI. 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.

VII. 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.

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

1. Regular Exams:	4 X 100 pts
– Exam I	
– Exam II	
– Exam III	
– Exam IV	
2. Final Exam (ACS Standardized Exam)	200 pts
3. Quizzes:	100 pts
4. Homework:	100 pts
5. Workshop:	100 pts
6. Attendance	50 pts
7. E-Notebook	50 pts
TOTAL	1000 pts

IX. Lecture Schedule (subject to change)

Week	Chapter ¹	Homework Assignment ^{2,3}	Note
1.	1. Chemistry	Unit 1	
2.	2. Atoms, Molecules, and Ions	Unit 2	
3.	3. Compositions of Substances and Solutions	Unit 3	
4.	4. Stoichiometry of Chemical Reactions I	Unit 4	
5.	Exam 1, Chapters 1 - 4 (Week of Sep 17)		
6.	4. Reactions in Aqueous Solution II	Unit 5	
7.	9. Gases	Unit 6	
8.	Exam 2, Chapters 4, 9 (week of Oct 17)		
9.	5. Thermochemistry	Unit 7	
10.	6. Electronic Structure	Unit 8	
11.	Exam 3, Chapters 5 - 6, Week of Nov 15		
12.	7. Chemical Bonding and Molecular Geometry	Unit 9	
13.	8. Advanced Theories of Covalent Bonding	Unit 10	
14.	Exam 4, Chapters 7-8, Dec 5		
15.	Final Exam on Tuesday, 7:00 am – 9:45 am, Dec 11, UGLC 106 (any room change will be announced in advance)		

¹ Chapter designation is based on **Chemistry** openStax free textbook.

² Homework unit designation is based on the Resource Book Self-Assessment in the Resource Book for Peer-Led Team Learning..

³ Homework is due the following week. For instance, Unit 1 Homework is assigned for week 1 and due in Week 2. Students will turn in the Homework to their PLs.