INTRO TO GENERAL CHEMISTRY LAB SYLLABUS CHEM 1107 UTEP

Fall 2021

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COURSE DESCRIPTION

UTEP CHEM 1107 is an introductory course to general chemistry laboratory. The overall goal of this course is to introduce general chemistry focused on understanding the concepts within the labs and the scientific method. These concepts include but are not limited to: understanding basic operation in a chemistry laboratory, components of matter, stoichiometry, chemical reactions, and thermochemistry.
The objectives of this course are as follows:

- Students will be exposed to chemical principles and experimental methods investigating the basic operation within a chemistry laboratory, as well as some properties and reactions of chemical substances.
- Perform calculations that relate atoms, molecules, moles, and mass.
- Convert quantities in related units and systems of measurement.

REQUIRED MATERIAL

- General Chemistry Laboratories, 2nd edition, by Mahesh Narayan, Jawad Mahmoud, and Bonnie Gunn (Available at UTEP bookstore)
- Chemical splash goggles
- Lab coat
- Scientific calculator

SAFETY

Chemistry laboratories can be hazardous if the rules are not followed. Most accidents that occur in the chemistry laboratory are a result of carelessness, impatience, unauthorized experimentation, and disregard for safety rules.

Laboratory Apparel

- Splash goggles are required in the laboratory AT ALL TIMES during wet labs! Splash hazards are perhaps the most significant danger present in the lab, and eyes are extremely sensitive.
- Laboratory coats must be worn at all times.
- Sandals, open-toed shoes, and high heels are not permitted in the lab.
- Shorts are not permitted in the lab, long pants and long sleeves are mandatory. Your clothing will be your protection from direct exposure of the skin to chemical splash.
- Long hair is to be constrained. Long hair is subject to fire and contact with chemicals.

Safety Equipment

- Identify all of the laboratory safety equipment and their location: the fire extinguisher, the emergency eyewash stations, the fire blankets, and the safety shower.

- Safety Data Sheets (SDS's) are available to you on request only.

ATTENDANCE

Attendance is mandatory. You are expected to be on-time and ready for lab at the beginning of each lab period.

If you miss an experiment, there will be no make-ups available, unless you have an emergency (you need to show proof) or a university-sanctioned event.

LAB RULES

- Upon entry to the lab, students must be properly attired. Splash goggles will be required for wet lab sections only.

- Once everyone is admitted into the lab, the TA will give a presentation to inform students about lab procedure, materials, and safety hazards.

- All lab reports are due at the end of the lab period unless otherwise specified. Data sheet or spreadsheets are to be complete in the lab, following the instructions provided during the lab period.

- The student is responsible for cleaning the workspace and any assigned lab areas before leaving the lab.

- Failure to follow the Lab rules will affect student grades.

PRE-LABS AND REPORTS

Pre-Lab preparation is the key to success, and the student must understand laboratory experiments thoroughly before starting the chemical experiments.

Lab reports will reflect precision and detailed observation concluding the assigned experiments; there may be additional questions to be answered at the end of the report form.

Both will be done during your laboratory session; at the beginning and the end respectively. Your TA must receive all prelabs and reports by the end of the session, at the indicated moments of the session, and your grades will be returned to you by the next week's session.

COURSE EVALUATION

The final grade is based on the following: 1/3 of the final grade the average of prelabs, 1/3 the average of lab reports, and 1/3 of the grade attendance and compliance to lab safety and instructions.

The last component of your grade will be based on your TAs perception and judgement of your performance. What is important is that you comply with al procedure and safety indications.

ACADEMIC DISHONESTY

UTEP rules will be strictly enforced, academic dishonesty including but not limited to cheating, plagiarism, data falsification will not be tolerated. Minor incidences will results in a score of zero for the lab period and recurrence will result in the failure of the course.

Please review the UTEP Academic Integrity Policy in the following link https://www.utep.edu/hoop/section-2/student-conduct-and-discipline.html

DISABILITY ACCOMODATIONS

UTEP is committed to provide an educational environment that is accessible to all students, those that need accommodations for a disability, please contact The Center for Accommodations and Support Services (CASS), located at Union Building East Room 106, or visiting its website http://sa.utep.edu/cass/home for an appointment to discuss your needs and the process for requesting accommodations.

SCHEDULE OF EXPERIMENTS

Week	Experiment
Aug 23-27	No Labs
Aug 30- Sept 3	Check-in, Welcome and Safety Lecture
Sept 6-10	No Labs in Observance of Labor Day
Sept 13-17	Activity1 General Laboratory Techniques
Sept 20-24	Activity 2 Significant Figures
Sept 27- Oct 1	Activity 3 Naming compounds
Oct 4-8	Activity 4 Density and Measuring Techniques
Oct 11-15	Activity 5 Properties of Solutions and Matter
Oct 18-22	Activity 6 Ionization and Classification of Electrolytes
Oct 25-29	Activity 7 Energy-Specific Heat and Nutrition
Nov 1-5	Activity 9 Le Chatelier's Principle and Chemical Equilibrium
Nov 8-12	Activity 10 Heat of Reactions
Nov 15-19	Activity 17 Saponification (**Last day of class**)

Week	Experiment	Prelab	Lab Report
Aug 30- Sept 4	Safety Lecture	No pre-lab	No lab report
Sept 13-18	Activity1 General Laboratory Techniques	At the beginning of the session (page 9-10 **"Questions"** section)	**At the end of the session** before leaving the room. (Page 7-9)
Sept 20-25	Activity 2 Significant Figures	At the beginning of the session (Page 13-14)	**At the end of the session** before leaving the room. (Page 15)
Sept 27- Oct 2	Activity 3 Naming compounds	No pre-lab	**At the end of the session** before leaving the room. (Page 23-26)
Oct 4-9	Activity 4 Density and Measuring Techniques	At the beginning of the session (Page 31)	**At the end of the session** before leaving the room. (Page 33)
Oct 11-16	Activity 5 Properties of Solutions and Matter	At the beginning of the session (Page 37)	**At the end of the session** before leaving the room. (Page 39)
Oct 18-23	Activity 6 Ionization and Classification of Electrolytes	At the beginning of the session (Page 47)	**At the end of the session** before leaving the room. (Page 49)
Oct 25-30	Activity 7 Energy-Specific Heat and Nutrition	At the beginning of the session (Page 55)	**At the end of the session** before leaving the room. (Page 57)
Nov 1-6	Activity 9 Le Chatelier's Principle and Chemical Equilibrium	At the beginning of the session (Page 71 and 75)	**At the end of the session** before leaving the room. (Page 73-74)
Nov 8-13	Activity 10 Heat of Reactions	At the beginning of the session (Page 79)	**At the end of the session** before leaving the room. (Page 81)
Nov 15-20	Activity 17 Saponification (**Last day of class**)	At the beginning of the session (Page 135)	**At the end of the session** before leaving the room. (Page 137)

IMPORTANT DATES

Aug 23rd Fall classes begin ▪
Aug 30th Labs begin ▪
Sept 6th Labor Day Holiday - University Closed ▪
Sept 8th Census Day ▪
Oct 29th Drop/Withdrawal Deadline ▪
Nov 25-26th Thanksgiving Holiday - University Closed ▪

Dec 2nd Last day of classes ▪
Dec 3rd Dead day ▪
Dec 15th Grades are Due ▪
Dec 16th Grades are posted to student records

COVID-19 PRECAUTION STATEMENT

Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors. The Student Health Center is equipped to provide COVID-19 testing. The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.