TEXAS A&M UNIVERSITY
SAN ANTONIO

College of Arts & Sciences
General Chemistry II Laboratory - CHEM 1112_013L Syllabus

Instructor: Dr. Eric A. Banks
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Office Hours: TBD/Appointment
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Lab Hours: Wednesday 3:00 PM – 5:45 PM
Class Location: STEC 321
Phone: N/A

Course Description:

This is the accompanying laboratory for CHEM 1312: General Chemistry II. The second semester of a two-semester sequence, the lab introduces many chemical concepts, problems, and calculations. Topics range from taking measurements, calibration, and statistical analysis, densities of solids through linear least squares analysis, verification of Boyle's Law, Charles' Law and Avogadro's Law, empirical formula of compounds, introduction to calorimetry, heat of chemical reactions, introduction to Acid-Base Chemistry, introduction to pH, and gravimetric analysis. Prerequisite: CHEM 1311 and 1111 and MATH 1314 or equivalent. Corequisite: CHEM 1312.

Course Materials:

Laboratory handouts: You must print a copy of all handouts from Blackboard before each lab session. Reports are submitted with permeant blue or black non-water-soluble ink. Five points are deducted for data recorded in pencil. Refer to attached schedule for the sequential list of labs. The completed laboratory handouts (i.e. laboratory reports) in PDF format are due at the end of the day in which the laboratory experiment was performed unless otherwise stated in Blackboard. All students submit individual reports for grading.

Calculator: scientific/engineering calculator. Examples of acceptable calculators include TI30Xa and TI36X.

Proper attire for lab: A) Closed-toe shoes that cover your foot in its entirety. B) The following list is not appropriate lab attire: shorts, skirts, mid-riff shirts. tank tops. ¾ length pants. pants with large holes. C) Lab coats D) Approved safety googles THIS POLICY WILL BE STRICTLY ENFORCED AND STUDENT IN NONCOMPLIANCE WILL BE DISMISSED FROM THE LABORATORY AND WILL RECEIVE NO CREDIT FOR THAT WEEK'S EXPERIMENT. We take YOUR safety in the laboratory very seriously and we expect the same from you.

Goggles and laboratory coats are ALWAYS worn properly in the laboratory. Your instructor may change goggle/lab coat wear depending on the laboratory activity.

Learning Objectives

By the end of this course students will be able to:

1. Demonstrate their understanding of safe laboratory practices, such as responsible disposal techniques and proper use of personal protective equipment (PPE) while performing experiments.
2. Identify the categories of hazards associated with chemicals and use Safety Data Sheets (SDS) as well as reference materials.
3. Apply the chemistry concepts learned in CHEM 1311 to the design, execution, and analysis of chemical experiments.

Communication. The best way to contact instructors is via email. All correspondence between professors and students must occur via Texas A&M University San Antonio email accounts. Students are expected to access Blackboard regularly for updates on the course, announcements, and other course materials. All students are strongly encouraged to come to office hours or make appointments at other times to discuss course material and ask questions. Discussions concerning grading/grades will not be addressed through email and will only be discussed during office hours or scheduled appointments.

Attendance Policy.

Late Work Policy. Punctuality is essential to maintaining a safe and efficient laboratory environment. Timely arrival ensures that you are present for important safety instructions and lab procedures. **Late Arrivals**: If a student arrives more than 10 minutes late, they will not be permitted to participate in the lab for that day. This will result in a grade of "0" for that week's lab report. Please plan your schedule accordingly to ensure prompt attendance at every lab session.

Lab Partners. Students will work in groups of two unless directed otherwise by the instructor.

Conduct and Behavior. My goal is to create a safe and engaging learning environment. Class disruptions are unacceptable, asking questions to clarify material during class does not qualify as a disruption and is encouraged. If you disrupt the class, you will be asked to leave for the day. Technology in the classroom may be a great a resource, but it can also hinder the learning process. Therefore, students are not allowed to wear ear buds and headphones and/or use cellphones during class. All cellphones must be on vibrate or turned off for the entirety of the class/lab period. In case of an emergency call, leave the room before answering the call. Texting during class is absolutely prohibited. The use of laptops, tablets or other devices for non-class related activities is not allowed. Electronic Devices during Exams. All electronic devices must be completely stored during exams and quizzes. Academic misconduct and attempts to cheat during the exam will be pursued according to Texas A&M-San Antonio code of conduct policy. You are discouraged from leaving the room during an exam. If you need to use the restroom, ask and leave all electronic devices with the instructor. Aggressive Behavior. The academic environment is meant for discussing ideas in a respectful manner. Tolerance, empathy, respect, and courtesy help us create a safe environment. Abusive and aggressive behavior will result in contacting the University Police Department and immediate removal of the student from the classroom. Visitors. Only students enrolled in the course are allowed in the classroom. No visitors are allowed. IMPORTANT. Each student receives this information during the first lecture. It is your responsibility to read this material and be familiar with the course content, procedures, and grading.

CHEM 1112 Spring 2025

Tentative Schedule[1].

Week	Week	Laboratory
1	Jan 20-24	**No Labs**
2	Jan 27-31	Introduction, Syllabus, Safety training
3	Feb 3-7	Excel Activity
4	Feb 20-14	Volume and Mass Measurement
5	Feb 17-21	Beer's Law
6	Feb 24-28	Colligative Properties
7	Mar 3-7	Factors Affecting Rate Laws
8	Mar 10-14	**No Labs- Spring Break**
9	Mar 17-21	Crystal Violet Kinetics
10	Mar 24-28	Percent Copper in Brass/Infographic Topic due
11	Mar 31-Apr 4	Infographic rough draft work
12	Apr 7-11	pKa and Molar Mass of Acids I
13	Apr 14-18	pKa and Molar Mass of Acids II/Infographic rough draft due
14	Apr 21-25	Thermodynamics of KNO_3
15	Apr 28-May 2	Electrochemistry/Final infographic due
16	May 5-9	**Final week- No labs**

Grading:
Each data sheet/report is worth 50 points.
Your final infographic project will be worth 80 points.
Your percentage for the course is derived from points you score out of points available.
All laboratory report/worksheet grades will be posted to Blackboard. However, course percentages, letter grades, etc. are not to be considered as official and students should use caution when using those to evaluate overall course grades. To calculate your grade, use the equation above. Using that equation, letter grades will be determined as:

Letter Grades:	A:	90.0 - 100%
	B:	80.0 - 89.9%
	C:	70.0 - 79.9%
	D:	60.0 - 69.9%
	F:	0 - 59.9%

[1] Instructor reserves the right to make changes as deemed necessary.