General Chemistry Lab I

CHEM - 1215 351

Engagement Plan

- At the start of each lab experiment, I will review procedures, overview experiment, and address any particular safety items.
- I will respond to messages within 24 hours. I will offer feedback on major assignments within 1 week from the submission date. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.

Attendance

- **Attendance in the lab is mandatory** and should be a priority in your scheduling.
- You must notify the instructor or lab coordinator in advance if you will not be able to attend the lab.
- Following proper notification, you may be **allowed to perform a missed experiment with another lab section that week**, subject to space availability and lab sequencing. Note: The make up lab instructor must initial your lab report before you leave the lab or you will not be granted any credit.
- If you miss a lab due to circumstances beyond your control and are unable to attend a physical make up lab, **you are allowed one make up virtual lab**. You must notify your instructor within four days of your absence and complete the virtual lab within seven days.
- You will not receive credit for any make up labs or virtual labs without prior instructor approval.

Course Description

Graded laboratory. It is recommended that students take CHEM 1210 in the same semester as this course.

Pre-Requisite(s): MATH 1050 w/C grade or better, or appropriate placement.
Semester: All

Course Learning Outcomes

Students will demonstrate competence in basic laboratory skills including good laboratory hygiene, laboratory safety and hazardous waste disposal.

- Demonstrate safe handling and manipulation of chemicals and laboratory glassware.
- Demonstrate competence in reading and applying basic laboratory instructions.
- Record observations of qualitative laboratory results appropriately, including physical and chemical properties.
- Be able to make chemical measurements using electronic balances, volumetric glassware, thermometers and burets
- Report quantitative laboratory results appropriately, including raw data and data analysis.
- Identify unknown samples based on physical and chemical properties observed in the laboratory.
- Write a basic laboratory report conclusion.
- Demonstrate competence in reading and understanding data tables, graphs, and charts used to describe phenomena studied in the laboratory.
- Identify and correct mistakes made during a laboratory session by analyzing results obtained
- Interact regularly with each other in the lab while working on experiments together.

Course Material

- Must have a computer with an internet browser capable of accessing applicable web-based course applications and word processing and graphing programs (e.g. Canvas, Microsoft Word PowerPoint, Excel, etc.).
- OSHA-approved safety goggles are mandatory and available for purchase at the bookstore.
- Lab coats or protective aprons (optional).
- Laboratory Notebook (optional).

Safety

- Following safety rules is crucial and protects you against the serious consequences of accidents. **These consequences may include loss of sight, severe skin burns, poisoning, or even death.**
- The safety rules will be discussed in detail by the instructor during the first week of the course. They are also listed in the Chemistry Lab Safety Agreement that every student must read, sign, and return to the instructor.
- Improper attire (shorts, sandals, revealing clothing) is grounds for immediate dismissal from the laboratory and you may be denied the benefit of a makeup lab.
- **Willful or negligent violation of the safety rules may results in receiving a failing grade** for the lab or course at your instructor's discretion.
- Electronic devices should only be used in the chemistry lab at the student's risk. NOTE: Chemistry labs are inherently contaminated with various types of chemical reagents that can easily be transferred to electronic devices by their use during lab.

Equipment

- At the beginning of the semester, **each pair of students in the course will be assigned to use one lab station**, consisting of three drawers of equipment. Glassware and utensils are stored in the top drawer, metal equipment is stored in the bottom two drawers.
- The drawers and equipment are shared among several lab sections. It is crucial that students **take good care of the equipment** by cleaning glassware properly with

glass soap, brush and water, asking the laboratory instructor to replace broken equipment, and locking the drawers after each class session.

- **Do not leave any personal items in the drawers** (lab coats, goggles, etc.). Any additional equipment provided on the cart each week must be returned to the cart after the experiment and not placed in the drawer. Additional glassware must be washed, and thermometers must be cleaned and turned off.
- Students are required to **report to the lab instructor problems** such as broken or dirty glassware, too few or too many items, metal clamps thrown together with glass, drawers not locked at the beginning of the lab session, etc. Two (2) points will be deducted from the score of the pair of students who used the equipment in the previous class session.

Brief Description of Assignments/Exams

The following three assignments are due each week:

- Pre-lab Quiz for the experiment to be performed in class that day.
- Lab Report for the experiment performed the previous week.
- Post-Lab Quiz for the experiment performed the previous week.

All assignments must be written in comprehensible English, using complete sentences, correct spelling, and grammar. Each student must submit a unique assignment. Group work is allowed in discussing problems, solutions, and errors but each individual must use his/her own style and words in the report/pre-lab/post-lab. Complete answers to all pre-lab and post-lab questions must be given. “Complete” means that the explanations, not just short answers must be included and all calculations must be shown, wherever applicable.

The lab report consists of:

1. A completed data sheet and observations including units. Observations usually concern noted procedural deviations and possible error sources.
2. All pertinent calculations, including formulas and results must be shown. Calculations must be organized and labeled to indicate clearly what is being calculated. Calculations must also include units.

3. A brief discussion (one to two paragraphs) of experimental results and errors, written in complete sentences. State the results first, then provide possible error sources and discuss their effect on the final result. A well-organized piece of work is expected.

The answers to Pre-Lab Quiz are due on the day the experiment will be performed. Late Pre-Lab Quizzes will not be accepted. The Post-Lab Quizzes and the Lab Report for each experiment are due the following week.

Reports and quizzes may be turned in one (1) week late with a loss of 30% of the points. Reports and quizzes that are more than one week late may not be accepted.

Grading Scale

Pre-Lab and Post-Lab quizzes are typically worth five (5) points. Lab reports are worth ten (10) points each, unless specified otherwise. To be awarded full credit for the report the students must include a detailed discussion of results and errors.

Final grades will be calculated according to the following scale:

Standard Grading Scale

Letter Grade		
A	100%	93%
A-	<93%	90%
B+	<90%	87%
B	<87%	83%
B-	<83%	80%
C+	<80%	77%
C	<77%	73%
C-	<73%	70%
D+	<70%	67%
D	<67%	63%
D-	<63%	60%
E	<60%	0%

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	Introduce Yourself	Discussion	0
	Introduce Yourself	Discussion	0
	Introduce Yourself	Discussion	0
	Roll Call Attendance	Assignment	100
9/2/25	Chemical and Physical Changes: Pre-Lab	Quiz	5
9/2/25	Glassware & Equipment Quiz	Quiz	0
9/2/25	Safety Quiz (PLO-CHEM-1)	Quiz	10
9/9/25	Chemical and Physical Changes: Lab Report	Assignment	10
9/9/25	Chemical and Physical Changes: Post-Lab	Quiz	5
9/9/25	Safety and Orientation: Paper Towel - Extra Credit	Assignment	0
9/10/25	Density of Matter: Pre-Lab	Quiz	5
9/17/25	Density of Matter: Lab Report	Assignment	10

Due Date	Assignment Name	Assignment Type	Points
9/17/25	Density of Matter: Post-Lab	Quiz	5
9/17/25	Paper Chromatography: Pre-Lab	Quiz	6
9/24/25	Iron in Total Cereal: Pre-Lab	Quiz	5
9/24/25	Paper Chromatography: Lab Report	Assignment	10
9/24/25	Paper Chromatography: Post-Lab	Quiz	4
10/1/25	Iron in Total Cereal: Lab Report	Assignment	10
10/1/25	Iron in Total Cereal: Post-Lab	Quiz	5
10/1/25	Lewis Structures: Pre-Lab	Quiz	3
10/8/25	Avogadro's Number: Pre-Lab	Quiz	5
10/8/25	Lewis Structures: Data Sheet	Assignment	10
10/8/25	Lewis Structures: Post-Lab	Quiz	3
10/22/25	Avogadro's Number: Lab Report	Assignment	10
10/22/25	Avogadro's Number: Post-Lab	Quiz	5

Due Date	Assignment Name	Assignment Type	Points
10/22/25	Conservation of Mass: Pre-Lab Quiz	Quiz	5
10/29/25	Conservation of Mass: Lab Report	Assignment	10
10/29/25	Conservation of Mass: Post-Lab	Quiz	5
10/29/25	Zinc and Iodine: Pre-Lab	Quiz	6
11/5/25	Double Displacement Reactions: Pre-Lab (PLO-CHEM-4)	Quiz	6
11/5/25	Zinc and Iodine: Lab Report (PLO-CHEM-2)	Assignment	10
11/5/25	Zinc and Iodine: Post-Lab	Quiz	4
11/12/25	Atomic Weight of an Unknown: Pre-Lab (PLO-CHEM-3)	Quiz	6
11/12/25	Double Displacement Reactions: Lab Report	Assignment	15
11/12/25	Double Displacement Reactions: Post-Lab	Quiz	4
11/19/25	Atomic Weight of an Unknown: Lab Report	Assignment	10
11/19/25	Atomic Weight of an Unkown: Post-Lab	Quiz	4
11/19/25	Copper and its Compounds: Pre-Lab	Quiz	4

Due Date	Assignment Name	Assignment Type	Points
12/3/25	Copper and its Compounds: Lab Report	Assignment	10
12/3/25	Copper and its Compounds: Post-Lab	Quiz	6
12/3/25	Enthalpy of Neutralization: Pre-Lab	Quiz	10
12/10/25	Enthalpy of Neutralization: Lab Report	Assignment	10
12/10/25	Enthalpy of Neutralization: Post-Lab	Quiz	4

Academic Integrity

The use of AI to create anything for submission in the lab is not allowed. Ethical use of AI to try and gain a better understanding of concepts is encouraged, but submission must be written in your own words. Similarly, no plagiarism of any other student's work is allowed in any capacity.

Additional Policies

Syllabus

This syllabus represents an agreement between you the student and the instructor. It is designed to ensure course integrity and fairness as well as provide students with a clear understanding of course expectations. The instructor and students are expected to use the syllabus and schedule as a guide for the semester. The syllabus is subject to change with appropriate notice.

Administrative Drops for Non-Attendance

Since this course only meets once per week, **attendance at the first class meeting is mandatory.** If you do NOT attend the first class meeting without notifying the instructor, you may be dropped from the course immediately after the first class session to enable students on the wait list to register for the course.

Universal Access

SLCC values inclusive learning environments and strives to make all aspects of the College accessible to our students. If you have a disability and believe you need accommodations to improve access to learning materials or the learning environment, please contact the Disability Resource Center: (phone) 801-957-4659; (email) drc@slcc.edu; (website) www.slcc.edu/drc.

Incomplete Grade and Withdraw from Class

A grade of "I" (Incomplete) is the instructor's option and is not given except only in the most extenuating of circumstances for which there is verifiable written documentation. To receive an incomplete, nearly all coursework must have been completed (e.g. ~75%) with a passing grade. It is the responsibility of the student to drop/withdraw from this class, not the instructor.

Academic Dishonesty

Academic dishonesty is absolutely NOT tolerated and includes all forms of cheating and plagiarism as outlined in the CODE OF STUDENT RIGHTS AND RESPONSIBILITIES. Cheating will be dealt with as harshly as allowed by the college on the first instance, which includes receiving a failing grade for the class.

Electronic Devices

Cell Phones are to be turned off during class. Computers can be used for note-taking and course-related purposes ONLY but should not be used during class for working on other tasks (e.g. answer emails, Facebook, other classes etc.). You may be asked to leave if your electronic device disrupts the class in any way.

Emergency Evacuation Procedures

We will leave the building immediately in case of an emergency. School guidelines are as follows: In the event of an emergency at SLCC, you can call 911 if you are in immediate danger.

You can also call the College Health Center at 801-957-4347 (Redwood) or 801-957-3323 (SCC) during their hours of operation. You can call the College Office of Risk Management at 801-957-4533, 801-957-4041, or 801-815-7555.

If you need to evacuate a building, you should:

- Turn off equipment and lights
- Close the door behind you
- Do not take personal belongings
- Leave the building immediately
- Report to your designated assembly area
- Wait for instructions from emergency responders
  You can visit SLCC.edu and @SLCCSafety on Twitter for real-time updates and directions.

You can also call the SLCC Emergency Information line at 801-957-INFO (4636).

How to Navigate to Canvas

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the Institutional Syllabus page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the Institutional Syllabus page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

SLCC Student Academic Calendar

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the Institutional Syllabus page.

Course Student Learning Outcomes

- Prereq: MATH 1050 w/C grade or better or appropriate Accuplacer score. Recommended coreq: CHEM 1210. Graded laboratory taken concurrently with CHEM 1210.