# Organic Chemistry Lab II

CHEM - 2325 401

## **Engagement Plan**

- At the start of each lab experiment I will Review procedures, overview experiment, and/or address safety].
- I will respond to messages within 2 buisness days. I will offer feedback on major assignments within two weeks. 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 are **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 2320 in the same semester as this course.

Prereq: CHEM 2310 w/C grade or better

Semester: All

## Course Prerequisites

• **Prereq:** CHEM 2315 with C or better.

• Recommended Coreq: CHEM 2320

• Estimated Course Fee: \$45 as of Fall 2025

### Course Materials

- 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.).
- Laboratory Notebook (no perforated pages).

Allowed: Composition Notebook



Allowed: Laboratory Notebook



Allowed: Carbon-Copy Spiral Bound Laboratory Notebook



NOT ALLOWED: Spiral bound common notebook.



- OSHA-approved safety goggles are mandatory and available for purchase at the bookstore.
- Lab coats or protective aprons (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 their 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. Introduction: overviewing the experiment goals and techniques used.
- 2. Results: highlighting key data and significant observations.
- 3. Discussion: providing explanations and rationale for results obtained.
- 4. Conclusion: repeating key data and confidence in the results.

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.

## Keys for Success (how to succeed in the course)

1. Take your first pre-lab quiz attempt with the procedures handy. See what questions you got wrong, review the procedures, and take your second attempt to master the concepts.

- 2. Start your one, untimed post-lab quiz attempt during lab so that you can utilize your instructor to clarify any confusing questions.
- 3. Start your lab report conclusion during lab so that you can clarify any points that need to be addressed with your instructor.
- 4. Spend time in SI 201, the STEM Learning Center, working with the tutors for FREE help with any assignments that you need direction on.
- 5. Contact your instructor for clarification and help understanding procedures before coming into lab or submitting an assignment.

## **Grading Scale**

Pre-Lab and Post-Lab quizzes are typically worth ten (10) and five (5) points, respectively. Lab reports are worth fifteen (15) points each, unless specified otherwise. Rubrics outline how to gain full points on each assignment.

Final grades will be calculated according to the following scale: Standard Grading Scale

Letter Grade		
А	100%	93%
A-	<93%	90%
B+	<90%	87%
В	<87%	83%
B-	<83%	80%
C+	<80%	77%
С	<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
	Roll Call Attendance	Assignment	100
9/3/25	Methyl Orange: Pre- Lab Quiz	Quiz	10
9/3/25	<u>Syllabus Quiz</u> (ungraded)	Quiz	0
9/3/25	Safety Quiz	Quiz	10
9/3/25	Glassware & Equipment Quiz	Quiz	10
9/10/25	Methyl Orange: Lab Report	Assignment	15
9/10/25	Methyl Orange: Post- lab Quiz	Quiz	5
9/10/25	Nitration: Pre-Lab Quiz	Quiz	10
9/17/25	Nitration: Lab Report	Assignment	15
9/17/25	Nitration: Post-Lab Quiz	Quiz	5
9/17/25	Triphenylmethanol: Pre-Lab Quiz (PLO-CHEM-1)	Quiz	10
10/1/25	Benzil: Pre-Lab Quiz	Quiz	10
10/1/25	Triphenylmethanol: Lab Report (PLO- CHEM-2)	Assignment	15

Due Date	Assignment Name	Assignment Type	Points
10/1/25	Triphenylmethanol: Post-Lab Quiz (PLO-CHEM-4)	Quiz	5
10/8/25	Benzil: Lab Report	Assignment	15
10/8/25	Benzil: Post-Lab Quiz	Quiz	5
10/8/25	Electrochemical Oxidation: Pre-Lab Quiz	Quiz	0
10/22/25	Banana Oil: Pre-Lab Quiz	Quiz	10
10/22/25	Electrochemical Oxidation: Lab Report	Assignment	15
10/22/25	Electrochemical Oxidation: Post-Lab Quiz	Quiz	0
10/29/25	<u>Banana Oil: Lab</u> <u>Report</u>	Assignment	15
10/29/25	Banana Oil: Post-Lab Quiz	Quiz	5
10/29/25	DEET: Pre-Lab Quiz	Quiz	10
11/5/25	DEET: Lab Report	Assignment	15
11/5/25	DEET: Post-Lab Quiz	Quiz	5
11/12/25	<u>Lab Project: Pre-Lab</u> <u>Survey</u>	Quiz	5
12/3/25	<u>Chalcones: Pre-Lab</u> <u>Quiz</u>	Quiz	10

Due Date	Assignment Name	Assignment Type	Points
12/3/25	<u>Lab Project: Lab</u> <u>Presentation</u>	Assignment	15
12/3/25	<u>Lab Project: Post-Lab</u> <u>Quiz</u>	Quiz	5
12/10/25	<u>Chalcones: Lab</u> <u>Report</u>	Assignment	15
12/10/25	<u>Chalcones: Post-Lab</u> <u>Quiz</u>	Quiz	5

## 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 <u>Institutional Syllabus</u> 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 <u>Institutional Syllabus</u> 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.

#### 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 <u>Institutional Syllabus</u> page.

### 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

## Course Student Learning Outcomes

 Prereq: CHEM 2310 w/C grade or better. Recommended coreq: CHEM 2320. Graded laboratory taken concurrently with CHEM 2320.

## 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 laboratory instructions.
- Be able to apply common organic chemistry techniques such as extraction, drying, purification, and characterization to the synthesis of chemicals.
- Record observations of qualitative laboratory results appropriately, including physical and chemical properties.
- Be able to make chemical measurements using electronic balances, volumetric glassware, and thermometers.
- Collect and analyze spectroscopic information from Infrared Spectrophotometers and Nuclear Magnetic Resonance Spectrometers.
- 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 formal laboratory report including introduction, results, discussion, and conclusion.
- 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.