Course Syllabus

✎ Edit

Department of Chemistry

CHEMISTRY 1003L

General, Organic and Biological Chemistry Laboratory

1 Unit

Fall 2024

Course info

Meeting days & times:	Instructor & TA*:	TA:	Meeting location:
Section 1: Monday 2:45-5:35 pm	Prof. Katherine Maloney	Natalie Dickerson	Sator 221
Section 2: Monday 6:30-9:20 pm	Prof. Jeremiah Meloch	Nathan Hansen	
Section 3: Tuesday 9:30 am - 12:20 pm	Prof. Bella Cruz	Carla Heberle Rivas	
Section 4: Tuesday 1:30-4:20 pm	Prof. Will Schumacher	Jack Trepus	
Section 5: Tuesday 6:30-9:20 pm	Prof. Ethan Bernstein	Leslie Duran	

Section 6: Thursday 1:30-4:20 pm	Prof. Bella Cruz	Allie Van Stelten	
Section 7: Thursday 6:30-9:20 pm	Prof. Jeremiah Meloch	Lucas Tanikawa	

*Contact info & photos for instructors and TAs can be found **here (https://canvas.pointloma.edu/courses/74240/pages/meet-your-instructors-and-tas)** .

PLNU Mission

To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

General Education Mission

PLNU provides a foundational course of study in the liberal arts informed by the life, death, and resurrection of Jesus Christ. In keeping with the Wesleyan tradition, the curriculum equips students with a broad range of knowledge and skills within and across disciplines to enrich major study, lifelong learning, and vocational service as Christ-like participants in the world's diverse societies and culture.

COURSE DESCRIPTION

From the PLNU Catalog: An inquiry-based laboratory that is a co-requisite for CHE1003.

CHE1003L is the laboratory course that accompanies CHE1003, Introduction to General, Organic and Biological Chemistry at Point Loma Nazarene University. These two courses are separately graded corequisites designed to be taken during the same semester.

COURSE LEARNING OUTCOMES

At the end of the course you will be able to:

1. Conduct yourself safely in a chemistry laboratory.
2. Perform chemical measurements, transformations, separations, and characterizations.
3. Report laboratory results clearly and concisely (and to the correct number of significant figures).
4. Recognize and apply concepts from CHE1003 in your everyday life.

REQUIRED RESOURCES

Laboratory Manual supplied on Canvas. You *MUST* print out the lab protocol and lab report and bring it to lab every week.

Laboratory safety glasses and lab coat (sold by the Chemistry Department in lab during the first week, or you may bring your own if you have them). *Required.*

LAB SCHEDULE AND ASSIGNMENTS

Note: This schedule is subject to change. Any substantial changes (i.e. changes to anything other than *Details* or *Readings*) will be announced on the *Announcements* page in Canvas, and modified here in the *Syllabus*. Up-to-date reading assignments will also be listed in each Week Overview.

Course schedule

DATES	EXPERIMENT
9/2 - 9/5	*No lab this week due to Labor Day*
9/9 - 9/12	Lab 0: Introduction to Lab & Lab Safety
9/16 - 9/19	Lab 1: Scientific measurements
9/23 - 9/26	Lab 2: Ions & their role in nutrition
9/30 - 10/3	Lab 3: Chemical reactions
10/7 - 10/10	Lab 4: Stoichiometry & mole relationships
10/14 - 10/17	Lab 5: Concentration and dilution
10/21 - 10/24	*No lab this week due to Fall Break*
10/28 - 10/31	Lab 6: Acids, bases, buffers and antacids
11/4 - 11/7	Lab 7: Aspirin and related compounds
11/11 - 11/14	Lab 8: Intermolecular forces: Extraction and TLC
11/18 - 11/21	Lab 9: Proteins
11/25 - 11/28	*No lab this week due to Thanksgiving Break*
12/2 - 12/5	Lab 10: Carbohydrates
12/9 - 12/12	TBD

SAFETY

Safety is a priority in the lab. You will be required to sign a safety agreement before taking part in the lab. Failure to comply with any rules in the safety agreement may result in exclusion from the lab (and a grade of "0" on any assignments missed as a result).

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ATTENDANCE

Regular and punctual attendance at all lab sessions is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings (**one lab period**), the faculty member may file a written report which may result in de-enrollment. If the absences exceed 20 percent (**three lab periods**), the student may be de-enrolled without notice until the university withdrawal date or, after that date, receive an "F" grade.

There are no allowed or excused absences except as approved in writing by the Provost for specific students participating in certain university-sanctioned activities (e.g. sports, band performances, etc.) If you must miss a lab for one of these reasons, then you must send an email to the Lab Coordinator (**kmaloney@pointloma.edu (mailto:kmaloney@pointloma.edu)**), the week *before* the lab that you will miss. The Lab Coordinator will then ensure that the missed lab counts as your one 'dropped lab' for the semester (see under Grading, below). In the event of illness or unforeseen personal emergencies, the Lab Coordinator should be notified as soon as you are well enough to do so. At the Lab Coordinator's discretion, the lab missed due to illness may count as the one 'dropped lab'.

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GRADING

Lab Reports - Some experiments will be done individually, while others are best worked in pairs. (Your lab instructor will specify which.) In either case, lab reports should be completed and submitted *individually by each student* no later than the end of each lab period.

Lab Quizzes - A quiz, given during the first 10 minutes of the lab period, is designed to test your understanding of the current and previous week's experiments. Pre-reading the lab procedure is necessary for success on the quiz (and in the lab!), as the quiz may cover new material found in the lab procedure. Lab quizzes may not be completed if a student is more than 10 minutes late to the lab period. *No late assignments (lab reports or lab quizzes) will be accepted.*

Participation - The participation component will evaluate your preparedness for each experiment as you arrive in lab (including bringing a copy of the lab protocol and lab report); your participation in each part of the experiment, whether working individually or with a partner; your attention to lab safety and neatness during lab; and cleanup of your lab space and public lab spaces, as needed, including equipment and chemicals, before you leave the lab for the day. The use of cell phones during lab result in a loss of participation points.

Dropped Lab - The lowest lab report, quiz, and participation grades will be dropped. If a student must miss lab due to a university-sanctioned activity (as described in the Attendance policy above), then the missed lab would count as their one dropped lab for the semester.

The activities described above will contribute to your total course grade according to the following distribution:

Grade distribution

Participation	15%
Lab Quizzes	15%
Lab Reports	70%

Student grades will be posted in the Canvas grade book throughout the course. Letter grades will be assigned at the end of the course based on your percentage of total possible points, according to the following scale:

Grade scale

A	B	C	D	F
A 93-100	B+ 87-89	C+ 77-79	D+ 67-69	F Less than 59
A- 90-92	B 83-86	C 73-76	D 63-66	
	B- 80-82	C- 70-72	D- 60-62	

PLNU COPYRIGHT POLICY

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

ACADEMIC HONESTY AND ARTIFICIAL INTELLIGENCE (AI) POLICY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. For all student appeals, faculty and students should follow the procedures outlined in the University Catalog. See **Academic Policies (http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278)** for definitions of kinds of academic dishonesty and for further policy information.

You are allowed to use Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini Pro 1.5, GrammarlyGo, Perplexity, etc.) <u>to generate ideas</u>, but you are **not** allowed to use AI tools <u>to generate content</u> (text, video, audio, images) that will end up in any work submitted to be graded for this course. If you have any doubts about using AI, please gain permission from the instructor.

PLNU ACADEMIC ACCOMMODATIONS POLICY

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities in accordance with the Americans with Disabilities Act (ADA). Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (EAC@pointloma.edu or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will work with the student to create an Accommodation Plan (AP) that outlines allowed accommodations. The EAC makes accommodations available to professors at the student's request.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course. Accommodations are not retroactive so clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any special accommodations.

PLNU RECORDING NOTIFICATION

In order to enhance the learning experience, please be advised that this course may be recorded by the professor for educational purposes, and access to these recordings will be limited to enrolled students and authorized personnel.

Note that all recordings are subject to copyright protection. Any unauthorized distribution or publication of these recordings without written approval from the University (refer to the Dean) is strictly prohibited.

LANGUAGE AND BELONGING

Point Loma Nazarene University faculty are committed to helping create a safe and hospitable learning environment for all students. As Christian scholars we are keenly aware of the power of language and believe in treating others with dignity. As such, it is important that our language be equitable, incl

and prejudice free. Inclusive/Bias-free language is the standard outlined by all major academic style guides, including MLA, APA, and Chicago, and it is the expected norm in university-level work. Good writing and speaking do not use unsubstantiated or irrelevant generalizations about personal qualities such as age, disability, economic class, ethnicity, marital status, parentage, political or religious beliefs, race, gender, sex, or sexual orientation. Inclusive language also avoids using stereotypes or terminology that demeans persons or groups based on age, disability, class, ethnicity, gender, race, language, or national origin. Respectful use of language is particularly important when referring to those outside of the religious and lifestyle commitments of those in the PLNU community. By working toward precision and clarity of language, we mark ourselves as serious and respectful scholars, and we model the Christ-like quality of hospitality.

If you (or someone you know) have experienced a bias incident regarding language, you can find more information on reporting and resources at www.pointloma.edu/bias.

SEXUAL MISCONDUCT AND DISCRIMINATION

In support of a safe learning environment, if you (or someone you know) have experienced any form of sexual discrimination or misconduct, including sexual assault, dating or domestic violence, or stalking, know that accommodations and resources are available through the Title IX Office at **pointloma.edu/Title-IX** (https://www.pointloma.edu/title-ix) . Please be aware that under Title IX of the Education Amendments of 1972, faculty and staff are required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Counseling Services at counselingservices@pointloma.edu or find a list of campus pastors at pointloma.edu/title-ix.

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources at www.pointloma.edu/bias

SPIRITUAL CARE

Please be aware PLNU strives to be a place where you grow as whole persons. To this end, we provide resources for our students to encounter God and grow in their Christian faith.
If students have questions, a desire to meet with the chaplain or have prayer requests you can contact the **Office of Spiritual Life & Formation** (https://www.pointloma.edu/offices/student-life-formation)

ASSIGNMENTS AT-A-GLANCE

The table below lists our assignments and their due dates as they are published. Click on any assignment to review it.

Course Summary:

Date	Details	Due
Thu Apr 27, 2023	📝 **Lab 7 Report** (https://canvas.pointloma.edu/courses/74240/assignments/1063395)	due by 11:59pm
Thu May 4, 2023	📝 **Lab 8 Report** (https://canvas.pointloma.edu/courses/74240/assignments/1063398)	due by 11:59pm
Thu May 25, 2023	📝 **Lab 10 Report** (https://canvas.pointloma.edu/courses/74240/assignments/1063356)	due by 11:59pm
Thu Jun 1, 2023	📝 **Lab 10 Report** (https://canvas.pointloma.edu/courses/74240/assignments/1063357)	due by 11:59pm
	📝 **Lab 12 Report** (https://canvas.pointloma.edu/courses/74240/assignments/1063361)	due by 11:59pm
Fri Sep 1, 2023	🚀 **Safety Contract Agreement** (https://canvas.pointloma.edu/courses/74240/assignments/1063246)	due by 11:59pm
	📝 **Final Week Survey Submission** (https://canvas.pointloma.edu/courses/74240/assignments/1063247)	
	📝 **Lab 1 Participation** (https://canvas.pointloma.edu/courses/74240/assignments/1063248)	
	📝 **Lab 1 Quiz** (https://canvas.pointloma.edu/courses/74240/assignments/1063249)	

Date	Details	Due

📝 **Lab 1 Report**
(https://canvas.pointloma.edu/courses/74240/assignments/1063250)

📝 **Lab 10 Participation**
(https://canvas.pointloma.edu/courses/74240/assignments/1063251)

📝 **Lab 10 Participation**
(https://canvas.pointloma.edu/courses/74240/assignments/1063252)

📝 **Lab 10 Quiz**
(https://canvas.pointloma.edu/courses/74240/assignments/1063253)

📝 **Lab 10 Quiz**
(https://canvas.pointloma.edu/courses/74240/assignments/1063254)

📝 **Lab 12 Participation**
(https://canvas.pointloma.edu/courses/74240/assignments/1063258)

📝 **Lab 12 Quiz**
(https://canvas.pointloma.edu/courses/74240/assignments/1063260)

📝 **Lab 2 Participation**
(https://canvas.pointloma.edu/courses/74240/assignments/1063263)

📝 **Lab 2 Quiz**
(https://canvas.pointloma.edu/courses/74240/assignments/1063264)

📝 **Lab 2 Report**
(https://canvas.pointloma.edu/courses/74240/assignments/1063265)

Date	Details	Due

📝 **Lab 3 Participation (https://canvas.pointloma.edu/courses/74240/assignments/1063266)**

📝 **Lab 3 Quiz (https://canvas.pointloma.edu/courses/74240/assignments/1063269)**

📝 **Lab 3 Report (https://canvas.pointloma.edu/courses/74240/assignments/1063271)**

📝 **Lab 4 Participation (https://canvas.pointloma.edu/courses/74240/assignments/1063273)**

📝 **Lab 4 Quiz (https://canvas.pointloma.edu/courses/74240/assignments/1063276)**

📝 **Lab 4 Report (https://canvas.pointloma.edu/courses/74240/assignments/1063278)**

📝 **Lab 5 Participation (https://canvas.pointloma.edu/courses/74240/assignments/1063280)**

📝 **Lab 5 Quiz (https://canvas.pointloma.edu/courses/74240/assignments/1063282)**

📝 **Lab 5 Report (https://canvas.pointloma.edu/courses/74240/assignments/1063284)**

📝 **Lab 6 Participation (https://canvas.pointloma.edu/courses/74240/assignments/1063286)**

Date	Details	Due

📝 **Lab 6 Quiz**
(https://canvas.pointloma.edu/courses/74240/assignments/1063288)

📝 **Lab 6 Report**
(https://canvas.pointloma.edu/courses/74240/assignments/1063290)

📝 **Lab 7 Participation**
(https://canvas.pointloma.edu/courses/74240/assignments/1063292)

📝 **Lab 7 Quiz**
(https://canvas.pointloma.edu/courses/74240/assignments/1063294)

📝 **Lab 8 Participation**
(https://canvas.pointloma.edu/courses/74240/assignments/1063296)

📝 **Lab 8 Quiz**
(https://canvas.pointloma.edu/courses/74240/assignments/1063297)

📝 **Lab 9 Participation**
(https://canvas.pointloma.edu/courses/74240/assignments/1063299)

📝 **Lab 9 Quiz**
(https://canvas.pointloma.edu/courses/74240/assignments/1063300)

📝 **Lab 9 Report**
(https://canvas.pointloma.edu/courses/74240/assignments/1063301)

📝 **Lab Safety Scavenger Hunt**
(https://canvas.pointloma.edu/courses/74240/assignments/1063302)

Date	Details	Due
	Roll Call Attendance (https://canvas.pointloma.edu/courses/74240/assignments/1063303)	
	Syllabus Quiz (https://canvas.pointloma.edu/courses/74240/assignments/1063245)	