

## GENERAL CHEMISTRY I (CHE1052) SPRING 2025 SYLLABUS

### Welcome to CHE1052

**PLNU Mission:** 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.

This is a 4 unit chemistry course taught by the Department of Chemistry at PLNU. Chemistry is a fundamental building block of life since every physiological process ultimately involves chemical reactions. Throughout this semester, I strongly encourage you to review class work regularly, practice problems daily and ask as many questions as necessary in order to succeed. Chemistry is my favorite subject to talk about and I look forward to helping you discover this exciting field.

### INSTRUCTOR:

Ariane Jansma, Ph.D.

Voicemail: 619-849-2623

Email: [ajansma@pointloma.edu](mailto:ajansma@pointloma.edu)

### OFFICE HOURS

Location: Rohr Science, 3<sup>rd</sup> floor Jansma Office

Directions: Enter through the Chemistry Department Office Suite (330)

Jansma Office is straight ahead as you enter the suite (334)

Mon, Wed, Fri	8:00 am – 9:30 am
Tues,	12:30 pm – 2:00 pm
Thurs.	8:00 am – 10:00 am

### LECTURE SCHEDULE (Additional details on Canvas)

#### Lecture, Section 1:

Monday, Wednesday, Friday

12:15 pm – 1:25 pm Latter Hall (LA) 101

**Final Exam:** Wednesday, May 7, 10:30 am – 1:00 pm

### Strategies for success in CHE1052

1. It is crucial that you primarily understand as well as memorize course material. You will be expected to synthesize your knowledge on homework, quizzes, and exams. Focus on recognizing patterns and learn to apply the problem solving strategies that are introduced in the book and lecture.
2. Working problems is the key to success. Work the practice problems in the book as you read the material and start homework sets early so that you can take advantage of office hours.
3. Be prepared for each class session. The time you invest in reading the assigned sections, taking notes, and answering pre-lecture practice problems will be repaid in full when it comes time to study for exams.
4. Get help if you do not understand something. I am here for you!

## Advice from recent General Chemistry students

- “Stay on top from the beginning. Work on test taking strategy. Study. Exams are everything.”
- “I advise them to start mastering chemistry assignments as soon as they are assigned. They should take advantage of office hours, too.”
- “Go to office hours if you don't understand something! Read the textbook - it actually helps so much to go over those examples and do them yourself. When studying for the exams, redo examples from class handouts.”
- “Dedicate a certain amount of time each day to reviewing in class material and go to office hours if you are confused about anything at all.”
- “Study hard and prioritize your time. Also, make a good relationship with the professor.”
- “Apply yourself and work hard. You as an individual determine your success in general chemistry.”

## COURSE DESCRIPTION

Study of the basic principles of modern chemistry. Emphasis on atomic and molecular structure, chemical bonding, gas laws, states of matter, and solutions. Prerequisite(s): Satisfactory high school background or CHE 1003 or PSC 1014. Corequisite(s): CHE 1052L.

## LEARNING OUTCOMES

An understanding of chemistry is a necessary part of an education in the basic and applied sciences, engineering, and medical professions. It also provides insight and increased comprehension regarding current events and proposed policies.

Specifically, upon completion of this course, students will be able to:

- Demonstrate a foundational knowledge of the general principles of chemistry including atomic and molecular structure, chemical bonding, states of matter, and behavior of solutions.
- Solve problems related to unit conversions, stoichiometry, energy calculations, and gas laws.
- Apply principles of chemistry to questions involving real-world scenarios.

General Education Learning Outcome 1e Quantitative Reasoning: Students will be able to solve problems that are quantitative in nature. This learning outcome will be assessed directly using problems on the final exam that are quantitative in nature.

## LEARNING MATERIALS\*

1. *Textbook (REQUIRED)*: Tro, Chemistry: A Molecular Approach Plus MasteringChemistry with eText, Pearson, 6<sup>th</sup> Edition, ISBN: 9780137832088
2. *Online Homework (REQUIRED)*: [MasteringChemistry](#), Course ID: **jansma34981**
3. *Scientific Calculator (REQUIRED)*: Non-graphing, non-programmable calculator required for exams and quizzes.
4. *Course Website (REQUIRED)*: Canvas [canvas.pointloma.edu](https://canvas.pointloma.edu) **CHE1052-1 SP25**
5. *Optional Materials*: Tro, Study Guide for Chemistry: A Molecular Approach, Pearson, 6<sup>th</sup> Edition; Tro, Selected Solutions Manual for Chemistry: A Molecular Approach, Pearson, 6<sup>th</sup> Edition

Textbook and Mastering Chemistry can be used for both semesters of General Chemistry.

## LOMABOOKS

This course is part of our course material delivery program, **LomaBooks**. The bookstore will provide each student with a convenient package containing all required physical materials; all digitally delivered materials will be integrated into Canvas. You should have received an email from the bookstore confirming the list of materials that will be provided for each of your courses and asking you to select how you would like to receive any printed components (in-store pick up or home delivery). If you have not done so already, please confirm your fulfillment preference so the bookstore can prepare your materials.

For more information about **LomaBooks**, please go: [HERE](#)

## EVALUATION

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

Mid-term Examinations (4)	50%
Quizzes	5%
Participation and Canvas Assignments	5%
Mastering Chemistry (Homework)	15%
Christian Practices	5%
Final Examination	20%

Letter grades will be assigned at the end of the course based on your percentage of total possible points, according to the following scale:

	<b>A</b> 93 – 100%	<b>A-</b> 90 – 92.9%
<b>B+</b> 87 – 89.9 %	<b>B</b> 83 – 86.9 %	<b>B-</b> 80 – 82.9 %
<b>C+</b> 77 – 79.9 %	<b>C</b> 73 – 76.9 %	<b>C-</b> 70 – 72.9 %
<b>D+</b> 67 – 69.9 %	<b>D</b> 63 – 66.9 %	<b>D-</b> 60 – 62.9 %
<b>F</b> < 59.9 %		

There is no A+ grade

## EXAMS AND QUIZZES

Four exams and a comprehensive final will be given during the semester. Quizzes will be given periodically to help you assess your knowledge in advance of exams. Make-up exams or quizzes will be arranged only if the instructor is contacted in advance and then only if you present an institutionally valid excuse. Only non-graphing and non-programmable calculators may be used for exams and quizzes.

## ATTENDANCE AND PARTICIPATION

You are required to attend each lecture on Monday, Wednesday and Friday. Participation will be measured by a Participation Question that will be turned in each class.

## PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions, the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university withdrawal date or, after that date, receive an “F” grade.

## **HOMEWORK**

Homework will be assigned regularly through [MasteringChemistry](#) (Course ID: jansma34981) or occasional Canvas assignments. Successful completion of all homework assignments is essential in mastering the course material. Late assignments will not be accepted. Homework will typically be due Monday, Wednesday and Friday nights each week and prelecture assignments will be due by 8:00 each morning we have class. My best advice is to work ahead with the homework as we cover the material so you can use office hours for help. You need to be able to work these problems with confidence for success on Exams.

## **CHRISTIAN PRACTICES ASSIGNMENT**

There ought to be something different about a course taken at PLNU when compared to an institution that is not faith based. This difference, at least for General Chemistry, is not in content. It is, instead a difference in the class community. I desire for our class to be one in which the needs of others in the class are considered by the community. You will be assigned to a group at the beginning of the semester and you will be asked to pray for members of the group throughout the semester. You will meet as a group at least three times during the semester with the first meeting occurring in the first two weeks of class. You will be required to fill out a log that includes the times you met as a group, the times you have prayed for group members, as well as times that you have encouraged a classmate or helped them in some way. You will hand this log in at the end of the semester and will be required to have at least 10 entries in addition to the three group meetings. This log will count for 80 points. In addition, you will be required to write a brief reflection on the overall assignment. This will also be worth 20 points.

## **PLNU FINAL EXAMINATION POLICY**

Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted on the Traditional Undergraduate Records: Final Exam Schedules site. If you find yourself scheduled for three (3) or more final examinations on the same day, you are authorized to contact each professor to arrange a different time for one of those exams. However, unless you have three (3) or more exams on the same day, no requests for alternative final examinations will be granted.

## **COURSE WEBSITE**

[Canvas](#) (CHE1052-1 SP25 – General Chemistry I) will be used constantly as a repository for all course material such as lecture notes, recorded lecture videos, problem sets, etc. Homework assignments will be a combination of Canvas and Mastering Chemistry. Grades will be posted to Canvas throughout the semester. It is your responsibility to check Canvas regularly and to confirm that your correct email address is in the system.

## **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.

## **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 you have questions, a desire to meet with the chaplain or have prayer requests you can contact your professor or the Office of Spiritual Life and Formation.

## **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.]

## **STATE AUTHORIZATION**

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on State Authorization to view which states allow online (distance education) outside of California.

## **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.

## **PLNU ACADEMIC HONESTY 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 for definitions of kinds of academic dishonesty and for further policy information.

## **ARTIFICIAL INTELLIGENCE (AI) POLICY**

Use of any Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) for work to be submitted for a grade is not permitted, and use of these tools will be treated as plagiarism and subject to the PLNU academic dishonesty policy. This will also hurt you in terms of exam preparedness so doing your own work will only help you.

## **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.

## **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, inclusive, 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](http://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](http://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](mailto:counselingservices@pointloma.edu) or find a list of campus pastors at [pointloma.edu/title-ix](http://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](http://www.pointloma.edu/bias)

## **LOMA WRITING CENTER**

The Loma Writing Center exists to help all members of the PLNU community cultivate transferable writing skills to engage their academic, professional, personal, and spiritual communities. We work toward this goal by conducting one-on-one consultation sessions, supporting writing education across the PLNU community, and participating in ongoing writing center research. Getting feedback from the Loma Writing Center while you're in the process of working on an assignment is a great way to improve the quality of your writing and develop as a writer. You are encouraged to talk with a trained writing consultant about getting started on an assignment, organizing your ideas, finding and citing sources, revising, editing for grammar and polishing final drafts, and more. For information about how to make in-person or online appointments, see Loma Writing Center webpage or visit the Loma Writer Center on the first floor of the Ryan Library, room 221.

- Appointment Calendar: <https://plnu.mywconline.com/>
- Website: <https://www.pointloma.edu/centers-institutes/loma-writing-center>
- Email: [writingcenter@pointloma.edu](mailto:writingcenter@pointloma.edu)

## **COURSE SCHEDULE**

The day-by-day schedule for this course is a separate document available on Canvas.