

GENERAL CHEMISTRY I (CHE1052) SPRING 2024 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.

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Email: ajansma@pointloma.edu

[Meet Prof J Video](#)

OFFICE HOURS

All office hours are held in the Rohr Science, 3rd Floor

Department of Chemistry Office Suite, Room 330

Mon, Wed, Fri: 8:30 am – 9:30 am, 11:00 am – 12:00 pm

Thurs: 8:00 am – 11:00 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: Friday, May 3 at 4:30 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.

Foundational Explorations 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, 6th Edition, ISBN: 9780137832088
2. *Online Homework (REQUIRED)*: [MasteringChemistry](#), Course ID: **jansma98316**
3. *Scientific Calculator (REQUIRED)*: Non-graphing, non-programmable calculator required for exams and quizzes.
4. *Course Website (REQUIRED)*: Canvas canvas.pointloma.edu **CHE1052-1 SP24**
5. *Optional Materials*: Tro, Study Guide for Chemistry: A Molecular Approach, Pearson, 6th Edition; Tro, Selected Solutions Manual for Chemistry: A Molecular Approach, Pearson, 6th Edition

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

EVALUATION

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

Mid-term Examinations (4)	50%
Quizzes	5%
Participation	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 approximate scale:

	A 93 – 100%	A- 90 – 92.9%
B+ 87 – 89.9 %	B 83 – 86.9 %	B- 80 – 82.9 %
C+ 77 – 79.9 %	C 73 – 76.9 %	C- 70 – 72.9 %
D+ 67 – 69.9 %	D 63 – 66.9 %	D- 60 – 62.9 %
F < 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. Lecture material is designed to help you with exam material and give you an opportunity to practice problems. Participation will be measured by a Participation Question that will be turned in each class.

PLNU ATTENDANCE POLICY

If the student is absent for more than 10 percent of class sessions (5 class sessions), the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent (10 class sessions), the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See [Academic Policies](#) in the Undergraduate Academic Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.

HOMEWORK

Homework will be assigned regularly through [MasteringChemistry](#) (Course ID: **jansma98316**) 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 and time**. The final examination schedule is posted on the course schedule as well as the [Undergraduate Records](#) 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. This is a university policy and our final is on Friday of finals week, so plan accordingly.

COURSE WEBSITE

[Canvas](#) (CHE1052-1 SP24 – 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.

FOUNDATIONAL EXPLORATIONS 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

PLNU strives to be a place where students 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 if you have prayer requests, you can contact the [Office of Student 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 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. Faculty should follow and students may appeal using the procedure 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 Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) is not permitted, and use of these tools will be treated as plagiarism. 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. 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 issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester.

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 and/or if they do not wish to utilize some or all of the elements of their AP in that course.

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.

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. 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.

COURSE SCHEDULE

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