Chemistry: The Science of





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.

# CHE1052 General Chemistry I – Spring 2025 (4 units)

#### **Instructor:**

Professor Laurance Beauvais, Ph.D. Email: <a href="mailto:lbeauvais@pointloma.edu">lbeauvais@pointloma.edu</a>

Phone: (619)849-3251

#### **Lectures:**

Section 1: 11 – 12:05 am, MWF Section 2: 12:15 – 1:25 pm, MWF

Both sections meet at Liberty Station Room 202

#### **Office Hours:**

Mon/Wed: 1:45 – 2:30 pm in Sator 206

There is no appointment needed for office hours. Please stop by if you have any questions or comments. If you cannot attend my office hours due to schedule conflicts, please email me to schedule another time to meet. Tuesday and Thursday are good days to arrange appointments with me.

## **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 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.

#### **Final Exam**

The final exam will be on Wednesday, December 17 from 4:30 – 7:00 pm on the PLNU campus.

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# **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."
- "Read the sections assigned for each lecture beforehand. Even if you don't understand what you are reading, it will make so much sense when the instructor explains it. Doing this keeps you on top of this class and makes quizzes and tests much easier to study for."
- "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."
- "Take the class seriously from the very beginning."

## **EVALUATION**

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

Hour Examinations (4)	50%
Homework (online & other)	15%
Quizzes, Participation, and Christian Practices	15%
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:

A	90 - 100%
В	80 - 89%
C	70 - 79%
D	60 - 69%
NC/F	< 60%

(+) and (-) grades will be assigned within each bracket. (There is no A+ grade.)

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## LEARNING MATERIALS\*

- 1. *Textbook*: Tro, <u>Chemistry: A Molecular Approach Plus Modified MasteringChemistry with</u> eText, Pearson, 6<sup>th</sup> Edition.
- 2. *Online Homework:* MasteringChemistry <u>www.masteringchemistry.com</u> (bundled with text or purchased separately) Course ID: stoneburner14405
- 3. Course Website: Canvas canvas.pointloma.edu
- 4. **TI-30XIIS** Scientific Calculator: This specific calculator model will be provided for all quizzes and exams in CHE 1052L. You need your own TI-30XIIS calculator for homework and worksheets. This calculator is also required in CHE 1052L, the co-requisite lab.
- 5. iClicker2 Student Remote.
- \* These materials are used for both semesters of General Chemistry.

## **ADMINISTRATION**

- 1. Attendance: 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.
- 2. The use of portable electronic devices (phones, laptops, iPods, etc.) not related to the course is not permitted in the classroom.
- 3. <u>Online Homework</u>: Homework will be assigned regularly through <u>MasteringChemistry</u> (Course ID: stoneburner14405). Successful completion of the homework is essential in mastering the course material. Late assignments will not be accepted. Grace is extended for a few missed assignments when determining grades.
- 4. <u>Participation</u>: Class participation is crucial for all students success and the grade will be based on handwritten assignments and clicker scores.
- 5. <u>Christian Practices:</u> Further information regarding the Christian Practices assignment will be provided during the second week of class.
- 6. Exams and Quizzes: Four exams and a comprehensive final will be given during the semester. Make-up exams will be arranged only if the instructor is contacted prior to the scheduled exam time and then only if you present an institutionally valid excuse. Quizzes will be given each week, covering material from the previous week. The lowest quiz score will be discarded when final grades are computed. Only non-graphing and non-programmable calculators may be used for exams and quizzes.
- 7. <u>Course Website</u>: <u>Canvas</u> (CHE1052-2 FA25 General Chemistry I) is used as a repository for course material such as lecture notes, slides, and miscellaneous items. Announcements will be sent out via Canvas. It is your responsibility to check Canvas regularly and to confirm that your correct email address is in the system.
- 8. Course Schedule: The course schedule is available on canvas.

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## 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.

### **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.

# **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.

### **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 619-849-2533). 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. Professors are able to view a student's approved accommodations through Accommodate.

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 accommodations.

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## **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.

### **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.

### **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.

# **Artificial Intelligence (AI) Policy**

You are allowed to use Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini Pro 1.5, GrammarlyGo, Perplexity, etc) as a study tool, but you are not allowed to use AI tools on exams and quizzes. If you have any doubts about using AI, please gain permission from the instructor.

#### **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 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.]

## **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.

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# **Lomabooks Instructions for Students**

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: <u>HERE</u>

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