

GENERAL CHEMISTRY II (CHE1053) SPRING 2024 SYLLABUS

Chemistry:
The Science of

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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.

Welcome to Chemistry 1053

This is a 3-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. Topics we will cover this semester include the fundamentals of solutions, kinetics, equilibrium, thermodynamics, transition metals, electrochemistry, and nuclear chemistry. This is such a fun class to teach because I can help build your foundation for so much future learning in chemistry. I am so happy you are here and very excited to see how this semester unfolds.

Instructor:

Laurance Beauvais, Ph.D.
Associate Professor
Email: lbeauvais@pointloma.edu

Lecture:

Section 3: 8:30 – 9:25 am, MWF in Latter 101

Office Hours: (Sator 206)

Monday: 1:30 – 2:30 pm

Wednesday: 1:30 – 2:30 pm

There is no appointment needed for office hours. Please stop by if you have any questions or comments. I know that some of you will not be able to attend my office hours due to schedule conflicts: please email me to schedule another time to meet.

Course Description

Study of the basic principles of modern chemistry. Emphasis on chemical kinetics and equilibrium, acid base theory, thermodynamics, solubility, metals, and general descriptive chemistry. Prerequisite(s): Successful completion of General Chemistry I (CHE 1052), or the equivalent. Math skills equivalent to those taught in pre-calculus. Corequisite(s): CHE 1053L.

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 the behavior of solutions, the characteristics of equilibrium (including acid/base equilibrium), the significance of free energy, the properties of electrochemistry, and structures of transition metal and their compounds.
- Solve problems related to describing basic chemical kinetics, characterizing reaction equilibrium, predicting the direction of spontaneous change, calculating electrochemical cell potentials and writing chemical equations for selected chemical reactions.
- Perform basic chemical laboratory techniques related to the topics listed above (CHE1053L).

Strategies for success in CHE1053

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:

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| 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:

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| A | 90 – 100% |
| B | 80 – 89% |
| C | 70 – 79% |
| D | 60 – 69% |
| NC/F | < 60% |

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

LEARNING MATERIALS*

1. *Textbook*: Tro, Chemistry: A Molecular Approach Plus Modified MasteringChemistry with eText, Pearson, 6th Edition.
2. *Online Homework*: MasteringChemistry www.masteringchemistry.com (bundled with text or purchased separately) Course ID: stoneburner01522
3. *Course Website*: Canvas canvas.pointloma.edu
4. *Scientific Calculator*: Non-graphing, non-programmable calculator required for exams and quizzes.
5. iClicker2 Student Remote or iClicker student app.

* These materials are used for both semesters of General Chemistry.

ADMINISTRATION

1. Attendance: You are responsible for all the material covered during class. 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. Online Homework: Homework will be assigned regularly through MasteringChemistry (Course ID: stoneburner01522). Successful completion of the homework is essential in mastering the course material. Late assignments will not be accepted.
4. Participation: Class participation is crucial for each student’s success and the grade will be based on handwritten assignments and clicker scores.
5. Christian Practices: 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 via Canvas at the start of 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.* The final exam is scheduled for **Friday, May 3, 4:30 – 7:00 pm.**
7. Course Website: Canvas (CHE1053-3 SP24 – General Chemistry II) 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.

PLNU Mission
To Teach ~ To Shape ~ To Send

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.

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.

INCOMPLETES AND LATE ASSIGNMENTS

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Incompletes will only be assigned in extremely unusual circumstances.

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.

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 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

Point Loma Nazarene University faculty are committed to helping create a safe learning environment for all students. 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 help and support 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, it is 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