

GENERAL CHEMISTRY I (CHE1052) FALL 2021 SYLLABUS

Chemistry:
The Science of

**Welcome to Chemistry 1052**

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.

Associate Professor

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Meet Prof J: <https://youtu.be/aVIAPTDrhPs>

OFFICE HOURS

Begin Week 2 and will be offered either hybrid in or through Zoom

Monday 1:30 – 2:30 pm: <https://pointloma.zoom.us/j/92167588783>

Tuesday 10:00 am – 12:00 pm: <https://pointloma.zoom.us/j/94672102773>

Thursday 12:00 – 1:30 pm: **Sator 221** or <https://pointloma.zoom.us/j/94211670124>

LECTURE SCHEDULE (Additional details on Canvas)

Lecture, Section 1: 8:30 am – 9:45 am Taylor 106

Strategies for success in CHE152

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.”
- “Take the class seriously from the very beginning.”

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.
- Perform basic chemical laboratory techniques related to the topics listed above.

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*: Tro, Chemistry: A Molecular Approach Plus MasteringChemistry with eText, Pearson, 5th Edition,
2. *Online Homework*: MasteringChemistry www.masteringchemistry.com (bundled with text or purchased separately) Course ID: **beauvais16391**
3. *Course Website*: Canvas canvas.pointloma.edu **CHE1052-1 FA20 – General Chemistry I**
4. *Scientific Calculator*: Non-graphing, non-programmable calculator required for exams and quizzes.
5. *Optional Materials*: Tro, Study Guide for Chemistry: A Molecular Approach, Pearson, 4th Edition 2017, ISBN-13: 9780134066271. Tro, Selected Solutions Manual for Chemistry: A Molecular Approach, Pearson, 4th Edition 2017, ISBN-13: 9780134066288.

* These materials are 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 and Participation	15%
Homework and Assignments	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 approximate scale:

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.)

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.*

ATTENDANCE AND PARTICIPATION

You are required to attend each lecture on Monday, Wednesday and Friday. Participation will be measured using your registered clickers to answer questions throughout each class and this score will be included with your quiz scores. In the event of illness or valid need to miss a class, you may request a zoom link from your instructor in order to attend remotely. Approval of remote attendance will be worked out on a case by case basis and requires sufficient notice to the instructor.

PLNU ATTENDANCE POLICY

If the student is absent for more than 10 percent of class sessions (virtual or face-to-face), 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 drop date or, after that date, receive the appropriate grade for their work and participation. In some courses, a portion of the credit hour content will be delivered **asynchronously** and attendance will be determined by submitting the assignments by the posted due dates. 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 AND ASSIGNMENTS

This will involve a combination of Mastering Chemistry and several activities available through Canvas and will count for 15% of your overall grade.

HOMEWORK

Homework will be assigned regularly through [MasteringChemistry](#) (Course ID: **beauvais16391**) or Canvas assignments. Successful completion of all homework assignments is essential in mastering the course material. Late assignments will not be accepted. Note that Mastering Chemistry is not directly linked to Canvas, therefore it is your responsibility to check the Mastering calendar for due dates. Homework will typically be due Monday, Wednesday and Friday nights each week, but this will be finalized on the Mastering Chemistry calendar.

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. This Christian practice, love of neighbor, assignment will be part of your Homework and assignments grade.

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. No requests for early examinations or alternative days will be approved, so please check this site prior to making any travel plans.

COURSE WEBSITE

[Canvas](#) (CHE1052-1 FA21 – General Chemistry I) will be used constantly as a repository for all course material such as lecture notes, recorded lecture videos, problem sets, etc. Additionally, most quizzes will be conducted through Canvas. 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.

ADDITIONAL PLNU INFORMATION

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.

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 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

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 Development](#).

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.

COURSE SCHEDULE

The content of the course schedule and assignments will be posted in Canvas as its own document.