

Adult Undergraduate GE

SCI1001L Chemistry in Our Everyday Lives (Lab)

1 Unit

Fall 2023

Quad 2

October 23 - December 17

Meeting Days: Asynchronous

Meeting Times: Asynchronous

Meeting Location: Online

Final Exam: (Day/Time): N/A

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Office Location and Hours: Zoom, by appointment

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.

ADULT UNDERGRADUATE GENERAL EDUCATION MISSION STATEMENT

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 cultures.

COURSE DESCRIPTION

SCI1001 is an introductory chemistry class designed to teach you the basics of chemistry of cooking and is suitable for anyone who has never taken any chemistry classes before. Chemistry might be scary for some of you, but we would like to challenge you to work regularly, practice and ask questions in order to succeed. I am glad you are here and I look forward to helping you discover the importance of chemistry in cooking.

COURSE LEARNING OUTCOMES

1. Design and conduct an investigation based on the scientific method.

- 2. Analyze observable facts and numerical data to arrive at an evidence-based conclusion.
- 3. Apply knowledge of fundamental chemistry/biochemistry principles to food and cooking examples.
- 4. Identify and use appropriate and sufficient scientific evidence to evaluate claims and explanations about the natural and designed world in the context of food and cooking.

GENERAL EDUCATION LEARNING OUTCOME

GELO 1d: Critical Thinking: Students will be able to examine, critique and synthesize information in order to arrive at reasoned conclusions.

INSTITUTIONAL LEARNING OUTCOMES

- 1. Learning, Informed by our Faith in Christ Students will acquire knowledge of human cultures and the physical and natural world while developing skills and habits of the mind that foster lifelong learning.
- 2. **Growing, In a Christ-Centered Faith Community** Students will develop a deeper and more informed understanding of others as they negotiate complex professional, environmental and social contexts.
- 3. **Serving, In a Context of Christian Faith** Students will serve locally and/or globally in vocational and social settings.

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

Laboratory # 1: Chopping skills and measurements

• 1 cucumber	· Olive oil
• 2 tomatoes	• Balsamic vinegar (or other kind if unavailable)
· 1 onion	Salt and Pepper
· 2 carrots	• Dijon Mustard (Old style if possible but others kind would do)
· 2 shallots	Bread (French baguette if possible)

Laboratory # 2: Mozzarella and Ricotta Cheese

·	1 gallon of whole Milk (or Raw milk)	•	Cheesecloth	
• ¼ Rennet tablet		ŀ	Tomatoes	
•	Citric acid (1.5 tsp)	ŀ	Basil	
•	Bottled water (1.5 cups)	ŀ	Salt and Pepper	
•	Digital thermometer	ŀ	Bread (French baguette if possible)	

Laboratory # 3: Ice Cream and Caramel

Ice Cream	Caramel

• 1 cup of salt	• ¹ ⁄ ₄ teaspoon salt	
• $\frac{1}{4}$ cup of table sugar	• ³ ⁄ ₄ cup of table sugar	
• ½ cup of whole milk	• 2 tablespoons of unsalted cultured butter	
• ½ cup of heavy whipping cream	• ½ cup of heavy whipping cream	
• ¼ teaspoon of vanilla	• ¼ teaspoon of vanilla	
· 3 cups of crushed ice	• 2 tablespoon of corn syrup	
• 1lb zip seal plastic freezer bag	• Digital thermometer	

Laboratory # 4: Browning and Meat Lab

Browning	Meat		
• 1 carrot	• 1 or 2 cuts of steak (if possible)		
· 1 potato	• Unsalted butter		
• 1 apple	• Salt		
• Lemon juice	• Pepper		
• Vinegar	• Other herbs (optional)		
• Baking soda	• Thyme		
• Purified or bottled water			

Laboratory # 5: Egg lab

· 12 eggs	· Sugar
Unsalted butter	Dark chocolate
• Kosher salt	· Pepper

ŀ	Lemon juice	ŀ	Other herbs (optional)
·	English muffin (if possible)	ŀ	Crushed ice
·	Ham (if possible)	ŀ	Avocado (if possible)

COURSE CREDIT HOUR INFORMATION

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 2-unit class delivered over 8 weeks. It is anticipated that students will spend a minimum of 37.5 participation hours per credit hour on their coursework. For this course, students will spend an estimated 75 total hours meeting the course learning outcomes. The time estimations are provided in the Canvas modules and below:

Time Estimates			
Assignment Type	Time-to-Complete		
Labs			
Lab Reports			
Lab Discussions			
TOTAL			

ASSESSMENT AND GRADING

This course uses _____ total points. Points are distributed among assignment types as follows:

Assignment Type	Description	Total Points
Labs		
Lab Reports		
Lab Discussions		

Assignment Points

Grades will be based on	the following:
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Α	В	С	D	F
A 93-100	B+ 87-89	C+ 77-79	D+ 67-69	F Less than 59
A- 90-92	B 83-86	C 73-76	D 63-66	
	B- 80-82	C- 70-72	D- 60-62	

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 <u>State Authorization</u> 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 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 <u>Academic Policies</u> 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. Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (<u>EAC@pointloma.edu</u> 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.

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 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 <u>Academic Policies</u> in the Undergraduate Academic Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.

Asynchronous Attendance/Participation Definition

A day of attendance in asynchronous content is determined as contributing a substantive note, assignment, discussion, or submission by the posted due date. Failure to meet these standards will result in an absence for that day. Instructors will determine how many asynchronous attendance days are required each week.

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.**

USE OF TECHNOLOGY

In order to be successful in the online or hybrid environment, you'll need to meet the minimum technology and system requirements; please refer to the <u>Technology and System Requirements</u> information. Additionally, students are required to have headphone speakers, microphone, or webcams compatible with their computer available to use. Please note that any course with online proctored exams require a computer with a camera (tablets are not compatible) to complete exams online.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

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.

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.

You may report an incident(s) using the **Bias Incident Reporting Form**.

ASSIGNMENTS AT-A-GLANCE