Department of Chemistry
College of Natural and Social Sciences
CHE 1001 (Chemistry and Society)
4 Units
Spring 2020

Days: MWF (01/14/2020 – 05/01/2020)

Time: 10:55am – 12:05pm

Location: Liberty Station Conf Center Rm 202

Final Exam: May 6 (W) 10:30am – 1:00pm

Review Sessions: Latter 1 (W 6:00pm – 7:00pm)

Instructor: Dr. Jonathan Lockner

Email: jlockner@pointloma.edu

Phone: 619-849-2900 / 619-849-7046

Office: Rohr Science 318 / Sator 216

Review Session Leader: Andrew Kamemoto

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 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.

Welcome to CHE 1001

Chemistry 1001 is an introductory chemistry course and satisfies a General Education requirement. It is designed to be accessible whether or not you have studied chemistry before. Chemistry might be intimidating for some of you, but if you actively participate in class and commit to routine study, you can succeed and even find the subject to be surprisingly relevant and thoroughly enjoyable. Some teaching methods used in this course might be different from what you are used to, but I am confident that they will enhance your learning experience and you will be better prepared for your future endeavors. I'm glad you're here and I look forward to helping you see the importance of chemistry in society!

Course Description

Designed to introduce non-science students to the major ideas of modern chemistry and their relevance in contemporary society. Chemical principles are examined and applied to areas such as nutrition, medicine, agriculture, pollution, and energy issues. (Meets a general education requirement; does not count toward any Chemistry Department majors.)

Course Learning Outcomes

The following outcomes are expected and will be assessed on quizzes, exams, and projects:

- Demonstrate knowledge of atomic structure, bonding, acids/bases, oxidation/reduction, and nomenclature
- Demonstrate knowledge of the fundamentals of nuclear chemistry

- Demonstrate knowledge of key terminology in organic chemistry and biochemistry
- Demonstrate knowledge of key concepts in energy production and consumption
- Perform research on a topic and deliver a presentation intended to teach others about the key concepts

GE Learning Outcome 1e will be assessed in this course using student performance on problems that are quantitative in nature on the comprehensive final exam.

Canvas

You will be required to access this course regularly on Canvas, where you may keep track of readings, access assignments, view lecture slides, read notifications, check your grades, etc.

Textbook

Chemistry For Changing Times, 14th Edition, John W. Hill, Terry W. McCreary, 2016

Calculator

Texas Instruments TI-30Xa Scientific Calculator (or equivalent, non-programmable, no text entry)

MasteringChemistry (integrated with Canvas)

This is a web-based homework site, and registration requires an access code. If you bought a new textbook from the bookstore, you already have an access code for MasteringChemistry in your bundle. You may also purchase an access code as a standalone item. In Canvas, click on “MyLab and Mastering” to get started.

Homework = MasteringChemistry (MC)

You will be assigned a set of homework problems for each chapter to be completed online at the MasteringChemistry website. The assignment for each chapter will be due by 11:59pm on the date specified in this syllabus (see below). You may also consult the assignment calendar within MasteringChemistry. Late homework completion will not be allowed. These assignments are invaluable in preparing you for the in-class exams. Working problems is the only practical way to learn the material, and you should try your best to solve the problems before looking at the solutions. Online homework will count for 12% of your overall course grade.

Group Work

We will also have regular in-class group work and in-class group assignments. Group work will count for 9% of your overall course grade. *This is where “Board Shorts” will come into play.*

Group Projects

During the semester, we will enjoy in-class presentations by you, the students! You will select a topic for which you will be expected to research, work collaboratively outside of class, prepare for, and deliver a presentation using PowerPoint, whiteboards, etc. Group projects count for 9% of your overall course grade.

Office Hours

I will make every effort to be available in my office during the times indicated here: MWF 2:00pm – 3:00pm. You may schedule an appointment or take your chances and drop by.

Review Sessions

I will do my best to schedule some in-class time prior to each exam for me to answer any questions that you might have. In addition, there will be student-led review sessions during the semester. Andrew Kamemoto (andrewkamemoto1213@pointloma.edu) will host a review session each week (unless otherwise noted).

Quizzes
There will be six quizzes given throughout the semester. Your lowest quiz score will be dropped. These quizzes may take on different forms, including but not limited to the following: take-home, in-class, in-class open-book, or in-class group work. Quizzes will count for 5% of your overall course grade.

Exams
There will be three hour exams given throughout the semester. Exams will cover material in the textbook and the lecture material as well as any other assigned material. These are worth 45% of your overall course grade. No exam scores will be dropped. **If you are caught cheating, I reserve the right to assign you a zero on that quiz or exam, and you may be subject to further action as stated in the University policy. Makeup exams will only be given for excused absences supported by the appropriate documentation.** You should make sure to contact me before your scheduled exam time. If you are unable to contact me, then have your roommate, parents, etc., make contact for you. If you find that there are errors in the grading of your exam, you should come by my office as soon as possible.

A tentative, but reasonably accurate, schedule for the three hour exams is given in the course schedule found on the last two pages of this syllabus. Changes to exam dates will be announced at least two days in advance. If you miss class and do not find out about the changes, that is your problem and it is not a valid reason for requesting a makeup exam.

Final Exam
The date for your comprehensive final exam is firmly set as per University policy. Successful completion of this class requires taking the final examination **on its scheduled day**. The final examination schedule is posted on the Class Schedules site. No requests for early examinations or alternative days will be approved. The final exam will consist of one portion for material covered in class since Exam 3 and one portion that will be comprehensive over the rest of the course. The final exam is worth 20% of your overall course grade.

Course Grade
Your overall course grade will be based on your performance in various course activities described above. The weighting of each course activity is shown below.

Homework	12% (120 points)
Group Work	9% (90 points)
Group Projects	9% (90 points)
Quizzes	5% (50 points)
Hour Exams	45% (450 points)
Final Exam	20% (200 points)

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 – 90%
C	70 – 80%
D	60 – 70%
NC/F	< 60%

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

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 of 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.

PLNU Academic Accommodations Policy★

While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic adjustments, modifications or auxiliary aids/services. At Point Loma Nazarene University (PLNU), these students are requested to register with the Disability Resource Center (DRC), located in the Bond Academic Center (DRC@pointloma.edu or 619-849-2486). The DRC's policies and procedures for assisting such students in the development of an appropriate academic adjustment plan (AP) allows PLNU to comply with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504(a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. After the student files the required documentation, the DRC, in conjunction with the student, will develop an AP to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. The AP must be implemented in all such courses.

If students do not wish to avail themselves of some or all of the elements of their AP in a particular course, it is the responsibility of those students to notify their professor in that course. PLNU highly recommends that DRC students speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

PLNU Attendance and Participation Policy★

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member can file a written report which may result in 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. See Academic Policies in the Undergraduate Academic Catalog.

Week	Date (Day)	In-Class Plan (Book Chapters)	HW (MasteringChemistry)
1	Jan 14 (T*)	Introduction & Syllabus	
	Jan 15 (W)	Lecture (Ch. 1) / Board Shorts	
	Jan 17 (F)	Lecture (Ch. 1) / ICA (Math)	Intro HW due by 11:59pm
2	**Jan 20 (M)**	**NO CLASS (MLK Jr. Day)**	
	Jan 22 (W)	Lecture (Ch. 2) / Board Shorts	Ch. 1 HW due by 7:00pm
	Jan 24 (F)	Lecture (Ch. 2) / **Quiz**	
3	Jan 27 (M)	Group Projects (Proposal)	
	Jan 29 (W)	Lecture (Ch. 3) / Board Shorts	Ch. 2 HW due by 7:00pm
	Jan 31 (F)	Lecture (Ch. 3) / ICA (Atomic Structure)	
4	Feb 3 (M)	Lecture (Ch. 4)	
	Feb 5 (W)	Lecture (Ch. 4) / Board Shorts	Ch. 3 HW due by 7:00pm
	Feb 7 (F)	Lecture (Ch. 4) / **Quiz**	
5	Feb 10 (M)	**Exam 1**	
	Feb 12 (W)	Lecture (Ch. 5)	Ch. 4 HW due by 7:00pm
	Feb 14 (F)	Lecture (Ch. 5) / Board Shorts	
6	Feb 17 (M)	Lecture (Ch. 5) / **Quiz**	
	Feb 19 (W)	Group Projects (Plan)	
	Feb 21 (F)	Lecture (Ch. 6)	Ch. 5 HW due by 7:00pm
7	Feb 24 (M)	Lecture (Ch. 6) / Board Shorts	
	Feb 26 (W)	Lecture (Ch. 6) / ICA (Phases & IMFs)	
	Feb 28 (F)	Lecture (Ch. 7)	Ch. 6 HW due by 7:00pm
8	Mar 2 (M)	Lecture (Ch. 7) / Board Shorts	
	Mar 4 (W)	Lecture (Ch. 7) / *Special Treat*	
	Mar 6 (F)	**Exam 2**	Ch. 7 HW due by 7:00pm
9	**Mar 9 (M)**	**NO CLASS (Spring Break)**	
	Mar 11 (W)	**NO CLASS (Spring Break)**	
	Mar 13 (F)	**NO CLASS (Spring Break)**	

Week	Date	In-Class Plan	HW (MasteringChemistry)
10	Mar 16 (M)	Lecture (Ch. 8)	
	Mar 18 (W)	Lecture (Ch. 8) / Board Shorts	
	Mar 20 (F)	Lecture (Ch. 8) / **Quiz**	
11	Mar 23 (M)	Lecture (Ch. 9)	Ch. 8 HW due by 7:00pm
	Mar 25 (W)	Lecture (Ch. 9) / Board Shorts	
	Mar 27 (F)	Lecture (Ch. 9) / ICA (OChem)	
12	Mar 30 (M)	Lecture (Ch. 11) / **Quiz**	Ch. 9 HW due by 7:00pm
	Apr 1 (W)	Lecture (Ch. 11) / Board Shorts	
	Apr 3 (F)	Lecture (Ch. 11)	
13	Apr 6 (M)	**Exam 3**	
	Apr 8 (W)	Lecture (Ch. 15)	Ch. 11 HW due by 7:00pm
	Apr 10 (F)	**NO CLASS (Easter Recess)**	
14	**Apr 13 (M)**	**NO CLASS (Easter Recess)**	
	Apr 15 (W)	Lecture (Ch. 15) / Board Shorts	
	Apr 17 (F)	Lecture (Ch. 15) / **Quiz**	
15	Apr 20 (M)	Group Projects (Presentation)	Ch. 15 HW due by 7:00pm
	Apr 22 (W)	Group Projects (Presentation)	
	Apr 24 (F)	Lecture (Ch. 16) / Board Shorts	
16	Apr 27 (M)	Lecture (Ch. 16) / ICA (Biochem)	
	Apr 29 (W)	*Who Wants to Be a Chemistry Millionaire?*	Ch. 16 HW due by 7:00pm
	May 1 (F)	Review Day	
17	May 4 (M)	**NO CLASS (Finals Week)**	
	May 6 (W)	**FINAL EXAM (10:30am – 1:00pm)**	
	May 8 (F)	**NO CLASS (Finals Week)**	