Department of Chemistry
College of Natural & Social Sciences
CHE 1003
4 Units
Fall 2019

Days: MWF (09/04/2019 – 12/13/2019)

Section 4: 8:30am – 9:35am (Latter Hall 2)

Section 3: 11:00am – 12:05pm (Starkey B 100)

Final Exam: December 18 (W) 4:30pm – 7:00pm

Review Sessions: Time TBD (Location TBD)

Instructor: Dr. Jonathan Lockner

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Office: Rohr Science 318 / Sator 216

Office Hours: MWF 3:30pm – 4:30pm

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.

Welcome to CHE 1003

Chemistry 1003 is an introductory chemistry class, and it is suitable for anyone who has never taken a chemistry class before and is a General Education requirement. Chemistry might be scary for some of you, but I would like to challenge you to work regularly, practice, and ask questions in order to succeed. Some teaching methods used in this course (e.g., group work, peer evaluation, online lectures) might be different from what you are used to, but I am confident that it will improve your learning experience and you will be better prepared for your future endeavors. I am glad you are here and I look forward to helping you discover or rediscover the importance of chemistry everywhere you look.

Course Description: CHE 1003 - Introduction to General, Organic, and Biological Chemistry (GE)

Examination of those aspects of inorganic and organic chemistry that are pertinent to biology and chemistry. Examines the structures and metabolic reactions of biomolecules. Provides a background for nursing, family and consumer sciences and physical education majors. (Meets a general education requirement; does not count toward any Chemistry Department majors.)

General Education (GE) 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 Learning Outcomes

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

- Describe the composition of a drug at multiple levels: from macroscopic to atomic level
- Describe the properties of atoms, ions, and molecules

- Write and balance chemical equations and explain the energies associated with them
- Explain the different properties of gases, solutions, and solids
- Discover the main functional groups (alkenes, amines, ketones, alcohols, acids)
- Explore some key aspects of biological chemistry (proteins, carbohydrates, lipids)

General Education Learning Outcome (GELO) 1e. Quantitative Reasoning: Students will be able to solve problems that are quantitative in nature. GELO 1e will be assessed in this course using student performance on problems on the final exam that are quantitative in nature.

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

Fundamentals of General, Organic, and Biological Chemistry, 8th Edition, John E. McMurry, David S. Ballantine, Carl A. Hoeger, Virginia E. Peterson, 2017

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 20% of your overall course grade.

Office Hours

I will make every effort to be available in my office during the times indicated here: MWF 3:30pm – 4:30pm. 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. Student TBD (TBD@pointloma.edu) will host a review session each week (unless otherwise noted).

Quizzes

There will be six quizzes worth 30 points each 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 15% of your overall course grade.

Exams

Hour Exams: Exams will cover material in the textbook and the lecture material as well as any other assigned material. There will be three major exams (150 points each). 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.

Exam Schedule: 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 comprehensive 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	20% (200 points)
Quizzes	15% (150 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.)

Course Schedule

Listed below is a schedule with approximate lecture coverage and tentative exam dates indicated.

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 these 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)	Homework (MC)	Lab
1	**Sep 2 (M)**	**NO CLASS (Labor Day)**		**NO LAB**
	Sep 4 (W)	Introduction & Syllabus	Intro	
	Sep 6 (F)	Lecture (1.1 – 1.6)		
2	Sep 9 (M)	Lecture (1.7 – 1.14)	Ch. 1	Lab 1
	Sep 11 (W)	Lecture (2.1 – 2.6) / **Quiz 1**		
	Sep 13 (F)	Lecture (2.7 – 2.9)	Ch. 2	
3	Sep 16 (M)	Lecture (3.1 – 3.5)		Lab 1
	Sep 18 (W)	Lecture (3.6 – 3.10)	Ch. 3	
	Sep 20 (F)	Lecture (4.1 – 4.4) / **Quiz 2**		
4	Sep 23 (M)	Lecture (4.5 – 4.8)	Ch. 4	Handout & Exam Review
	Sep 25 (W)	Lecture (4.9 – 4.10)		
	Sep 27 (F)	**Exam 1 (Ch. 1 – 4)**		
5	Sep 30 (M)	Lecture (5.1 – 5.4)	Ch. 5	Lab 7
	Oct 2 (W)	Lecture (5.5 – 5.7)		
	Oct 4 (F)	Lecture (6.2 – 6.3)	Ch. 6	
6	Oct 7 (M)	Lecture (6.4 – 6.5)		Lab 8
	Oct 9 (W)	Lecture (8.2, 9.1 – 9.5) / **Quiz 3**	Ch. 9	
	Oct 11 (F)	Lecture (9.6 – 9.12)		
7	Oct 14 (M)	Lecture (10.1 – 10.5)	Ch. 10	Lab 10
	Oct 16 (W)	Lecture (10.6 – 10.7)		

	Oct 18 (F)	Lecture (10.8 – 10.9) / **Quiz 4**	Ch. 12	
8	Oct 21 (M)	Lecture (12.1 – 12.4)		Lab 12
	Oct 23 (W)	**Exam 2 (Ch. 5 – 6, 8.2, 9 – 12)**		
	Oct 25 (F)	**NO CLASS (Fall Break Day)**		

Week	Date (Day)	In-Class Plan (Book Chapters)	Homework (MC)	Lab
9	Oct 28 (M)	Lecture (13, 14)	Ch. 13	Indigo Synthesis
	Oct 30 (W)	Lecture (14.3, 15)	Ch. 14	
	Nov 1 (F)	Lecture (16.1 – 16.5)	Ch. 15	
10	Nov 4 (M)	Lecture (16.6 – 16.7)	Ch. 16	Lab 4
	Nov 6 (W)	Lecture (17)	Ch. 17	
	Nov 8 (F)	Lecture (Review) / **Quiz 5**		
11	Nov 11 (M)	Lecture (Ch. 18)	Ch. 18	Lab 16
	Nov 13 (W)	Lecture (Ch. 18)		
	Nov 15 (F)	Lecture (Ch. 18)		
12	Nov 18 (M)	Lecture (Ch. 19)	Ch. 19	Lab 17 & Exam Review
	Nov 20 (W)	Lecture (Ch. 19)		
	Nov 22 (F)	**Exam 3 (Ch. 12 – 19a)**		
13	Nov 25 (M)	Lecture (Ch. 20)	Ch. 20	**NO LAB**
	Nov 27 (W)	**NO CLASS (Thanksgiving Recess)**		
	Nov 29 (F)	**NO CLASS (Thanksgiving Recess)**		
14	Dec 2 (M)	Lecture (Ch. 20)		Lab 14
	Dec 4 (W)	Lecture (Ch. 22) / **Quiz 6**	Ch. 22	
	Dec 6 (F)	Lecture (Ch. 22)		
15	Dec 9 (M)	Lecture (Ch. 23)	Ch. 23	Lab 15
	Dec 11 (W)	Lecture (Ch. 24)	Ch. 24	

	Dec 13 (F)	Viruses & Final Exam Review		
16	Dec 16 (M)	**NO CLASS (Finals Week)**		**NO LAB**
	Dec 18 (W)	**FINAL EXAM (4:30pm – 7:00pm)**		
	Dec 20 (F)	**NO CLASS (Finals Week)**		