

# Chemistry 294 (Organic Chemistry I, 3 units) Fall, 2018

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Section 1: MWF 8:30-9:25 LA 101 103 8/28 – 12/7

Section 2: MWF 1:30-2:25 LA 1 8/28 – 12/7

1. **Course Description:** Study of organic compounds by functional group families with emphasis on structures, reactions, mechanisms, stereochemistry, and synthesis.
2. **Course Learning Outcomes:** The following outcomes are expected and will be assessed on exams and quizzes:
  - a) Apply the fundamental principles of polarity, acidity, resonance, and structure/stability relationships to relevant problems
  - b) Demonstrate fluency in the nomenclature of alkanes, alkenes, alkynes, alcohols, ethers, and alkyl halides, and an understanding of the basic mechanisms by which these compounds react.
  - c) Design synthetic strategies involving alkanes, alkenes, alkynes, alcohols, ethers, and alkyl halides
  - d) Propose reasonable reaction mechanisms in which alkanes, alkenes, alkynes, alcohols, ethers, and alkyl halides participate based on information discussed in class.
  - e) Infer molecular structure using instrumental techniques to include mass spectrometry, infrared spectroscopy, and nuclear magnetic resonance spectroscopy.

**Program Learning Outcomes:** PLO 1d and 2 are introduced and developed but not mastered in this course, so there are no course assignments used for assessment of our PLO's.

3. **Texts:** Janice Gorzynski Smith, **Organic Chemistry**, 5<sup>th</sup> edition, McGraw-Hill Publishing, 2017. You are expected to purchase a copy of this text.

**CONNECT Allocation:** This is a web based homework site. You are required to purchase access. If you bought a new book from the book store you already received access to CONNECT in your bundle. Our section web address is <https://connect.mheducation.com/class/m-perry-all-sections-3>. A stand alone copy of CONNECT can be purchased online, which includes the e-book.

Janice Gorzynski Smith, **Study Guide / Solutions Manual to Accompany Organic Chemistry**. You might want to purchase a copy of this book.

4. **Molecular Models:** You will find that a set of molecular models is very useful in this course.
5. **Internet Resources and Communication:** You will be required to access this course on Canvas. I will place chapter notes for the class on this sight that you will have to print out and answer specific questions on prior to class. Sections of the notes will also be completed in class. The notes may contain some information that is not in the text. If filled out correctly, your notes should serve as an excellent chapter summary for review. I will generally have the notes for a given class on-line by 5:00 p.m. two days before we begin the chapter in class. Also, you are expected to access the CONNECT online homework site.

6. **Assigned Problems:** There will be a set of assigned problems from the note packet that you must do prior to coming to class. You will hand them in for credit at the beginning of the class. These problems will be graded on effort rather than accuracy and will count for 10% of your course grade.. In Addition, you will be assigned a set of homework for every chapter to be completed online at the CONNECT web site. The assignment for each chapter includes all of the possible questions and will be due by 11:59 pm two days after the completion of a chapter in lecture. A late penalty of 10% per day past the due date will be enforced. You will be graded out of 100 points per assignment, which correlates to 10 problems. These assignments are invaluable in preparing you for the in-class exams. I strongly encourage you to solve as many problems as possible as working problems is the only practical way for learning the material, and you should try your best to solve the problems before looking at the solutions. The online homework will count for 10% of your overall course grade.
7. **Group Work:** You will be required to perform some in-class work in groups. These groups will consist of 3-4 students and will be assigned in the beginning of the semester. Group work will consist of short assignments and quizzes as well as exam review. Group work will count toward 10% of your overall course grade.
8. **Christian Practice:** 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 Organic 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 draw a name of a classmate early in the semester, and you will be asked to pray for them throughout the semester. You will be required to fill out a log that includes the times you have prayed for this student 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. This log will count for 50 points. In addition, you will be required to write a brief reflection on the overall assignment. This will also be worth 50 points. This Christian practice, love of neighbor, assignment will be worth 6% of your overall course grade.
9. **Office Hours:** I will make every effort to be available in my office during the times I've indicated below for office hours. I will hold office hours in ST 207 (My research lab). You are welcome to schedule an appointment or take your chances and drop by my office in the chemistry portables Space 03, especially if you find these times inconvenient.

**Office Hours**

Monday: 10:45-12:00,

Wednesday: 3-4

Thursday: 2-3

Friday: 10:45-12:15

10. **Help Sessions:** I will do my best to schedule some class time prior to each exam for me to answer any questions that you might have.
11. **Quizzes:** There will be thirteen vocabulary quizzes worth 10 points each given over the course of the semester. There will also be three post-exam quizzes throughout the semester worth 20 points each.
11. **Examinations:**
- a) **Major Exams:** Exams will cover material in the text and the lecture material as well as any other assigned material. There will be 3 major exams worth 100 points each. These will count for 36% of your overall course grade. There will be no exam scores dropped. Exams will be comprehensive but material covered since the previous exam will be emphasized. **If you are caught cheating, you can be given a zero on that quiz or exam, and may be subject to further action as stated in university policy. Makeup examinations will be given only for excused absences provided the appropriate documentation is provided within the time frame (2 working days of the end of the excused absence). This is an absolute deadline by which you must notify me of any excused absence!** I would certainly appreciate it if you contact me the day of the examination or before the examination if you must miss an exam for any reason. My phone (849-2976) has a 24-hour message service so you may leave a message (always leave a phone number where you may be reached). If you are unable to call me then have your

roommate, parents, etc. make the contact for you. If you find that there are errors in the grading of your exam, you will have two class periods after the exam has been returned to submit your exam for re-grading.

- b) **Final Exam:** A mandatory, 200 point final exam will be given at the time dictated by the University schedule. Approximately half of the final will be over material covered since the third in-class exam, and the other half will be comprehensive. The final will count for 18% of your overall course grade.
- c) **Exam Schedule:** A schedule for the 3 hour exams and final exam is given below. Although it should not be necessary, changes in exam dates, if required, 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 make-up exam. The date for the final exam is firm as set by University policy.

Exam #1	September 21 (Friday)
Exam #2	October 17 (Wednesday)
Exam #3	November 12 (Monday)
Final	December 10 (Monday 4:30-7)

12. **Laboratory:** You are required to register and attend CHE294L as a co-requisite for this course. If you drop the lab, you may be required to drop the course as well. This lab is worth 1 unit and will be graded independently. You will receive a separate lab syllabus.
13. **Course Grade:** Your overall course grade will be based on your performance in lecture. You will receive a separate grade for the laboratory. The weighting of each course activity is shown below.

Note Problems	10%
Homework	10%
Group work	10%
Quizzes	10%
Christ. Practice	6%
Hour exams	36%
Final	18%

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.) CHE294L is graded on a Credit/No Credit basis. You must earn at least 60% of the possible points in lecture and lab to pass the course.

14. **Attendance:** Attendance will be taken and will be used for advising purposes. If your absence is not excused, then you will get a zero for any group work done on that day. If you miss 20% of the total class meetings (8), you can be dropped from the course.

15. **Course Syllabus:** Listed below is a course schedule.

<b>Date</b>	<b>Chapter</b>	<b>Sections</b>	<b>Vocab Quiz</b>	<b>Note Problems</b>
8-28	N/A	Introduction	N/A	None
8-29	1	1.1-1.3b, 1.7-1.13	N/A	1.1-1.6
8-31	1	1.3C-1.6, 1.12-1.13	N/A	none
	2	2.1-2.5intro	N/A	2.1-2.3
9-5	2	2.5a-2.8	Ch 1	2.3-2.9
9-7	3	3.1-3.2, 3.8 (3.3-3.7 good review)	Ch 2	3.1
9-10	4	4.1-4.4	Ch 3	4.1-4.4
9-12	4	4.5-4.10	N/A	4.5-4.12
9-14	4	4.11-4.13a	N/A	4.13-4.15
9-17	4	4.13b-4.15	N/A	4.16-4.18
9-19	1-4	Exam Review	Ch 4	None
9-21		<b>EXAM #1 (Chpt. 1-4)</b>		
9-24	5	5.1-5.6	N/A	5.1-5.5
9-26	5	5.7-5.10	N/A	5.6-5.8
9-28	5	5.11-5.13	N/A	5.9, 5.10
10-1	13	13.1-13.4	Ch 5	13.1-13.5
10-3	13	13.5-13.8	N/A	13.6-13.10
10-5	14	14.1-14.2	Ch 13	14.1-14.4
10-8	14	14.3-14.6	N/A	14.5-14.7
10-10	14	14.7-14.10	N/A	14.8
10-12	14	14.11	N/A	14.9, 14.10
10-15	5,13,14	Exam Review	Ch 14	None
10-17		<b>EXAM #2 (Chpt. 5,13,14)</b>		
10-22	6	6.1-6.3	N/A	6.1-6.5
10-24	6	6.4-6.11	N/A	6.6-6.10
10-26	7	7.1-7.8	Ch 6	7.1-7.4
10-29	7	7.9-7.11	N/A	7.5, 7.6
10-31	7	7.12-17.18	N/A	7.7-7.9
11-2	8	8.1-8.5	Ch 7	8.1-8.7
11-5	8	8.6-8.8	N/A	8.8-8.11
11-7	8	8.9, 8.11	N/A	8.12-8.14
11-9	6-8	Exam Review	Ch 8	None
11-12		<b>EXAM #3 (Chpt. 6-8)</b>		
11-14	9	9.1-9.5	N/A	9.1-9.12
11-16	9	9.6-9.10	N/A	9.13-9.21
11-19	9	9.11-9.14, 9.16-9.18	N/A	9.21-9.26
11-26	10	10.1-10.5, 10.7-10.10	Ch 9	10.1-10.9
11-28	10	10.11-10.15	N/A	10.10-10.13
11-30	10	10.16-10.18	N/A	10.14-10.15
12-3	11	11.1-11.8	Ch 10	11.1-11.4
12-5	11	11.9-11.12	N/A	11.5
12-7	9-11	Exam Review	Ch 11	None
12-10		<b>FINAL EXAM (4:30-7)</b>		

16. **Academic Accommodations:** While all students are expected to meet the minimum academic standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At Point Loma Nazarene University, students requesting academic accommodations must file documentation with the Disability Resource Center (DRC), located in the Bond Academic Center. Once the student files documentation, the Disability Resource Center will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual needs of the student. This policy assists the university in its commitment to full compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities (ADA) Act of 1990, and ADA Amendments Act of 2008, all of which prohibit discrimination against students with disabilities and guarantees all qualified students equal access to and benefits of PLNU programs and activities.
17. **University 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.
18. **Copyright:** 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.
19. **Academic Honesty:** 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.