

Chemistry 2400 Syllabus, Spring Semester 2016

Text: Organic Chemistry, 9th Ed., by John McMurry, and ACS Study Guide.

Suggested: Introduction to Spectroscopy, by Pavia, Lapman, and Kriz

Instructors: Dr. Pedro C. Vasquez

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Office: 317 Petit Science Center

Office Hours: TWTh: 2:00 - 3:30 pm. No office hours the day of a test or the day after a test.

Lecture: MWF 8:00 - 9:10 a.m., room 102 LS

Prerequisite: CHEM 1212

CHEM 2401 is a tutorial class to help you with the lecture. You should register. The credits count toward your GPA but not towards your degree. Grading is based on your attendance. Check GoSolar for details.

A separate help session (2400 SI) is often offered as a tutorial. Registration is not required. Information on this class will be provided at the beginning of the semester.

Grading Scheme: Four exams will be given during the semester; the lowest score of these tests will be dropped; the average of the **remaining 3 tests will count 55% of your final grade.** The **final exam will count 30%** of the total grade. You are strongly encouraged to take all tests. Short quizzes, every Friday, **will count 10%** of the total grade. In addition, **homeworks will count 5%** of the total grade.

Letter grades are assigned as follows:

A+ = > 950*	A = 900-949	A- = 860-899
B+ = 820-859	B = 780-819	B- = 740-779
C+ = 700-739	C = 660-699	C- = 620-659
D = 540-619	F = <540	

Note: a C- is not a passing grade for a science major.

***Without including any extra credit. An "A" in the final exam is also required.**

Important Dates:

01/11	Classes begin
01/18	MLK Holiday. No classes
03/01	Last day to withdraw with a grade of "W"
03/14	Spring break. No classes during this week.
04/25	Last day of classes

Test Schedule:

Test 1 - Wednesday, 02/03

Test 2 - Wednesday, 02/24

Test 3 - Wednesday, 03/30

Test 4 - Wednesday, 04/20

Final Exam - TBA (Comprehensive, mandatory. ACS standardized test).

Course Introduction and Objectives: You will be introduced to the fascinating world of Organic Chemistry. Organic Chemistry touches your life in ways you may not realize. You are made of organic chemicals. The foods you eat, the clothes you wear, the medicines you take in times of illness are all organic chemicals. I hope to instill in you a sense of appreciation of how organic chemistry is the foundation of the life process and how it affects your quality of life. We will explore structure/reactivity relationships as a basis for all of organic. We will use reaction mechanisms (the pathways by which chemical bonds are broken and formed) as an underlying thread to tie together many seemingly different reactions. We will discuss the energetic of chemical reactions which, when coupled to mechanistic theory, will answer the question of why chemical reactions occur. We will learn aspects of modern spectroscopic techniques for structure determination.

Please note:

1. No make-up tests or quizzes will be given.
2. Students need to show their GSU Panther I.D. card when taking exams and quizzes.
3. The instructor reserves the right to assign seating during exams and quizzes.
4. Hats that cover the eyes are not allowed during exam and quizzes.
5. Cell-phones and pagers need to be kept either in purses or book-bags during exams and quizzes; of course, they should be turned off at all times.
6. The University requires that faculty members must give an **F** to all those students who are on their rolls but no longer taking the class.
Students that withdraw themselves by the mid-point will receive a **W** under this policy.
7. Grades will not be posted on "D2L". Please keep a record of your graded assignment so you are aware of your standing on the class.
8. Final grades are only available on GoSolar.
9. *This course syllabus provides a general plan for the course; deviations may be necessary.*

Notes:

- A) If you miss an exam for any reason that will be dropped automatically. **NO MAKE-UP TESTS WILL BE GIVEN.** I expect a written note from any student who misses an exam explaining why the exam was missed. A student will not be excused from more than one test for any reason. If the student believes that more than one excused absence from a test is justified, the student should seek a hardship withdrawal from the course from the Dean of Students.
- B) **NO MAKE-UP QUIZZES WILL BE GIVEN.**
- C) **NO EXTENSIONS TO HOMEWORKS. LATE HOMEWORKS OR ELECTRONIC COPIES ARE NOT ACCEPTED.**
- D) We will be covering Chapters 1-13, sequentially. Some of the chapters will be covered partially. Sections 25.2-25.4 will be covered at the end of chapter 5. Plan about 2-3 lectures per chapter.
You should read ahead of the lecture. Please keep up with the work. **Organic Chemistry requires a daily effort to be successful.** We will emphasize a logical approach to Organic Chemistry. Your ability to think and apply concepts to new problems will determine your success in Organic Chemistry.

Required Approach to Organic Chemistry: Read through the chapter quickly. Reread the chapter with a pencil in hand while you do all in-chapter practice problems.

It is necessary to work all the additional problems (without reference to the answer key) at the end of the chapter after your reading and in-chapter exercises are complete. You may have to rework those that give you trouble prior to the exam until you become completely comfortable with the material. It is only through working problems that you can evaluate your progress and see if you understand the course principles through application of these principles in problem solving. It is important to understand the solutions to these problems. You can learn from the problems just as you learn through your reading of the chapter.

Study Methods: Organic Chemistry emphasizes logical applications of learned factual material. You will be asked to develop your analytical abilities. Think your way through to the solution for a problem rather than trying to simply memorize your way through the course. After 3-4 weeks, those who try to memorize without understanding will run into mental overload. Organic Chemistry is a building process. The facts that you learn on day one will be important in problem solving even in the later chapters.

Recopy your lecture notes soon after class to make sure they are complete. If you have questions, use my office hours. When you come to my office, I will expect you to bring your recopied lecture notes and written answers to your problem sets.

Use the on-line work and workbook provided with your text. Solve as many extra problems as you can. The more problems you attempt and work the better you become at the subject of Organic Chemistry.

Make flash cards of pertinent facts for drill work.

I do not provide students with lecture notes.

Class Preparation and Attendance: Students are expected to attend all lectures. As a courtesy to your fellow students, please arrive on time and do not leave before the lecture is complete. The student is solely responsible for timely completion of all assignments, regardless of any reason or absence. Reading assignments should be completed prior to the lecture. Please keep up with the suggested problems.

Supplemental Materials:

1. Molecular model kit.
2. CHEM TV CDROM to supplement classroom visualization exercises.
3. Study guide/answer key.
4. A student workbook by Dr. Keith Pascoe, with copies of all tests, is available at **the GSU bookstore** (\$???)

This workbook will be used in the tutorial classes and review sessions.

5. Website online quizzes with feedback included with textbook.
6. Homeworks, and answers to all homeworks, quizzes and tests (except for the final exam) will be published in a timely fashion in the "D2L" website.

Chemistry Department Student Integrity Policy: The Department of Chemistry follows the University policy on academic honesty published in the Faculty Affairs Handbook and the On Campus: The Undergraduate Co-Curricular Affairs Handbook.

All tests taken must represent your individual, unaided efforts. To receive or offer information during any examination will be considered cheating. The use of unauthorized supplementary materials during tests also will be considered cheating.

Any suspected offenses may be referred to the Department Chair for appropriate action.