



COURSE SYLLABUS

I. BASIC INFORMATION

Department of Chemistry
CHE 314
Organic Chemistry I
Three (3) semester credit hours
Corequisite: CHE 324

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II. SCOPE OF COURSE

The chemistry of organic compounds will be studied by considering first the bonding of carbon and then systematically the classes of organic compounds created when various functional groups occur in organic molecules. Methods of introducing each functional group into an organic molecule will be thoroughly discussed. The reactions characteristic of hydrocarbons and alkyl halides will also be examined in detail. Other important aspects of the course include symmetry properties of organic molecules, and organic reaction mechanisms. Finally, the role of organic molecules in biological and environmental processes will be explored.

III. COURSE OBJECTIVES

The general objectives of the course are:

1. To acquire a sound foundation of basic organic chemical knowledge,
2. To learn the language, logic and methods of organic chemistry,
3. To master the mental skills required to gain new information through experimentation in organic chemistry,
4. To utilize the theories of organic chemistry to understand a few simple biochemical systems and life processes, and
5. To gain insight into the relevance of organic chemistry to society.

IV. TEXTBOOKS AND MATERIALS

The required textbook for the course is **Organic Chemistry** (7th edition) by John McMurray. Students are also required to purchase the OWL homework tutorial for this textbook. If Owl is not included with the textbook, it may be purchased from <http://www.ichapters.com/market/index.html>. Purchase of a model kit such as the one offered by Darling Models is recommended. Use of a model kit is permitted on all exams.

V. ASSIGNED READING

The required reading for this course includes chapters 1-12 of the textbook. Additional reading may be necessary to achieve full comprehension of the topics covered in the course.

VI. SPECIAL PROJECTS/ACTIVITIES

A technical paper of medium length, 8-12 typewritten pages (excluding endnotes and bibliography) is to be written during the term. The technical paper is to be on a current topic or a significant event associated with organic chemistry. Students are to have the topic of the paper approved by the instructor no later than October 9th. The form and content of the paper will contribute equally to the grade for the report. The style manual for the paper will be *The ACS Style Guide*, which outlines the form used in the journals of the American Chemical Society. The book is available in the university library and in the university bookstore. The paper is due Wednesday, December 2nd. A minimum of five ASC journal articles are to be referenced and turned in with the paper.

It is the course instructor's belief that students who are gifted in science should be involved in professional development and service in the sciences. For this reason, students may choose to substitute a Professional Development/Service Learning component for the technical paper requirement. Students who choose to do so may accrue up to 10 points per hour they are engaged in an activity. Students choosing this option are to hand in an up to date summary on October 9th and again on Wednesday, December 2nd. The summary is to include what amount of time is to be designated for Professional Development or Service Learning for each activity, date of the activity and a brief description of the activity. At least one third of this component's points are to be for Professional Development, and at least one third for Service Learning. Acceptable Professional Development activities include attending Chemistry Department seminars, regional meetings, SAACs chapter meetings and American Chemical Society sectional meetings. An example of a service learning project would be helping with a chemistry related outreach such as chemistry demonstrations for the CISA project or Day of Remembrance. If a student signs up to help on a project and does not show up, they will be docked the number of points they would have accrued for that project. Students may include the points for the deleted end of chapter quizzes (parameterized questions) only if they chose this option.

VII. METHOD OF INSTRUCTION

The course is taught by the lecture/demonstration/discussion/homework method. The instructor relies heavily on student participation during the course of each lecture. This requires that students thoroughly review class notes and complete the homework assignments between each class meeting. Students should also read the portions of the textbook pertinent to the topics scheduled for each session of the class. **Students are encouraged to form study groups/teams which will promote interactive learning.**

VIII. METHOD OF EVALUATION

Each student may accumulate a total of 1000 points. No make-up exams shall be given unless arrangements are made in advance of foreseen absences or immediately following the unforeseen absences due to sickness or family trauma. For absences to be considered excused, students must submit appropriate documentation.

Each activity shall be weighted as follows:

<u>Activity</u>	<u>Points</u>
OWL Homework	180
End of Chapter Quizzes (highest 10)	150
Technical Paper or Service /Professional Development	95
Hour exams (three)	375
Comprehensive final examination	200

TOTAL	1,000

Using OWL, students are to master the sections covered in each class before the class meets again. End of chapter quizzes (parameterized questions) are to be taken prior to the hour exams covering those chapters. The schedule will be posted on OWL. Credit will not be given for unexcused late homework or chapter quizzes.

The three hour exams will tentatively be on September 23rd (covering chapters 1-3), October 14th (covering chapters 4-6), and November 11th (covering chapters 7-9). Questions for Chapters 10-12 will be included in the final. The comprehensive final exam will be given on December 7th from 2-4 PM.

The final course grade will be assigned utilizing the following scale:

<u>Total Points</u>	<u>Course Grade</u>
1000-900	A
899-800	B
799-700	C
699-600	D
Below 600	F

IX. ATTENDANCE POLICY

It should be noted that courses of study which are most worthwhile are those which evoke much study and preparation by the student. It is the instructor's opinion (and personal goal) that each class meeting will be interesting and worthy of the student's attendance and participation. Excessive absences will make it difficult to achieve the course objectives. Students who have excessive absences will be reported to the Dean of Students and a corrective action plan will be developed and implemented. This plan may include point deduction if excessive absences continue. Students are responsible for all material covered in class and should obtain class notes from fellow class members when absences do occur.

X. ACADEMIC HONESTY

The penalty for cheating (giving or receiving aid on a test, having someone else do your homework, etc.) is an F in this course. The student will also be reported to the academic center as required by Union University's policy.

This syllabus is intended to help the student plan his work in this course and is no way considered to be a contract. It is subject to change at any time by the instructor should a change be in the best interest of the class.