



Hunan University

CHEM32: Organic Chemistry

Professor: To be announced

Total contact hours: 54 hours

Credit: 4

Course Description

Topics covered including structure, stereochemistry, functional groups, and reactions of carbon-containing compounds, spectroscopic techniques. And emphasis will be put on compounds and molecules of biochemical interest.

Note: Students should be well prepared for the lab sections.

Textbook Information

Organic Chemistry, by William Henry Brown, Brooks Cole, 5th edition.

Grading

- Attendance 10%
- Lab 20%
- Quizzes 20%
- Midterm 20%
- Final Exam 30%

A+ 96-100	A 90-95	A- 85-89
B+ 82-84	B 78-81	B- 75-77
C+ 71-74	C 66-70	C- 62-65
D 60-61	F < 60	

Course Schedule

The course has 24 class sessions in total. All sessions are 2 hours and 15 minutes in length.

Note: the syllabus is subject to change.



Class 1:
Introduction to the course and the required readings
Covalent Bonding and Shapes of Molecules

Class 2:
Alkanes and Cycloalkanes

Class 3:
Stereochemistry and Chirality

Class 4:
Acids and Bases
Quiz 1

Class 5:
Alkenes.

Class 6:
Reactions of Alkenes

Class 7:
Alkynes

Class 8:
Haloalkanes, Halogenation, and Radical Reactions
Quiz 2

Class 9:
Nucleophilic Substitution and s-Elimination.

Class 10:
Alcohols

Class 11:
Ethers, Sulfides, and Epoxides
Quiz 3

Class 12:
Infrared Spectroscopy

Class 13:
Nuclear Magnetic Resonance Spectroscopy



Class 14:
Mass Spectrometry

Class 15:
Introduction to Organometallic Compounds

Class 16:
Aldehydes and Ketones

Class 17:
Carboxylic Acids

Class 18:
Functional Derivatives of Carboxylic Acids

Class 19:
Enolate Anions and Enamines
Quiz 4

Class 20:
Conjugated Systems.

Class 21:
Benzene and the Concept of Aromaticity

Class 22:
Reactions of Benzene and its Derivatives

Class 23:
Amines

Class 24:
Final Exam

Lab Schedule

Room: To be announced

Hour: 18:00 – 20:00

The lab reports have three parts, the pre-lab (to be completed on-line before the lab commences), the data and calculations and the post-lab. The pre-lab assignment is due when you enter the lab. You and your partner will work collaboratively on lab and post-lab sections and hand in one report for both of you.



In order to do a good job in the lab, it is essential that you come well prepared. Reading the experiment for the first time in the lab will put you and your partner at a disadvantage and make it very difficult to complete the experiment on time.

If you have any technical questions on the pre-lab, data section or post-lab assignments, you are encouraged to ask your instructor. Safety goggles and other equipment are required in lab. Lab lectures are mandatory containing important safety and lab information.

Attending Policy

Regular and prompt attendance is required. Under ordinary circumstances, you may miss two times without penalty. Each absence over this number will lower your course grade by a third of a letter and missing more than five classes may lead to a failing grade in the course. Arriving late and/or leaving before the end of the class period are equivalent to absences.

Policy on "Late Withdrawals"

In accordance with university policy, appeals for late withdrawal will be approved ONLY in case of medical emergency and similar crises.

Academic Honesty

Hunan University expects all students to do their own work. Instructors will fail assignments that show evidence of plagiarism or other forms of cheating, and will also report the student's name to the University administration. A student reported to the University for cheating is placed on disciplinary probation; a student reported twice is suspended or expelled.

General Expectations:

Students are expected to:

- Attend all classes and be responsible for all materials covered in class and otherwise assigned;
- Complete the day's required reading and assignments before class;
- Review the previous day's notes before class and make notes about questions you have about the previous class or the day's reading;
- Participate in class discussions and complete required written work on time;
- Refrain from texting, phoning or engaging in computer activities unrelated to class during the class period;
- While class participation is welcome, even required, you are expected to refrain from private conversations during the class period.



Special Needs or Assistance

Please contact the Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material. Our goal is to help you learn, not to penalize you for issues which mask your learning.