

Topics in Organic Chemistry
CHE6503 (3 hours credit)

Syllabus

Professor: Dr. Trent Selby

Office: Hederman 407

Phone: (601) 925-7665

E-mail: selby@mc.edu (please put "organic class" in the subject line).

Office Hours: Mon., Tues., Wed. & Thurs. 10:00-11:30
(or by appointment)

Class: Lecture (required attendance)

Textbook: (required) "Organic Chemistry," 10th Ed., Solomons & Fryhle (Wiley)
(optional) 1. "Study Guide and Solutions Manual for Organic Chemistry, 10th Edition," T. W. Graham Solomons.
2. A molecular models kit for organic chemistry

Prerequisites: Eighteen hours of chemistry.

Attendance Policy: Regular attendance at all lectures is expected. Students with excessive absences may be dropped from the course for lack of attendance. If a regular class meeting is missed, it is the student's responsibility to obtain any assignments or instructions that were given.

Exams :

Exam 1 (100 pts):

Exam 2 (100 pts):

Exam 3 (100 pts):

Comprehensive Final (200 pts):

Any grading issues must be resolved within one week from the day the exam is passed back to the class. After this time, I will no longer discuss a grading issue for that exam.

*Makeup tests will be given only in case of excused absences. You can take an exam early if you make arrangements with me and if you have a good reason.

Literature Paper:

Students are required to write a 4-5 page literature review on an assigned Organic Chemistry topic.

Grading:

Three hour exams = 300 pts.

Final Exam = 200 pts.

Lit. Paper = 50 pts.

Maximum possible points = 550 pts.

Course Grades

A = 495

B = 440

C = 385

D = 330

Academic Integrity: Mississippi College students are expected to be completely honest in all aspects of the course. Dishonesty, such as cheating or plagiarism, will not be tolerated and will be dealt with according to the stated policies of the university. For details, see the current *Mississippi College Undergraduate Catalog*, the *Tomahawk*, and Policy 2.19.

Course description: This course includes a study of the fundamental types of organic compounds, their structure, nomenclature, classification, synthesis, typical reactions, and reaction mechanisms. Principles and examples relating to biochemical concepts will be emphasized.

Rationale: This course will provide a fundamental understanding of organic chemical compounds and principles and how they are involved in everyday life as well as in advanced chemical studies, biochemistry, and medicine on a molecular level.

Student Objectives: The objectives of this course are to provide the student with the necessary knowledge and experience to be able to:

1. understand structural theory as it relates to organic compounds.
2. relate structure and nomenclature of compounds.
3. predict shapes of molecules, physical properties, and chemical properties of compounds when given the formulas of compounds.
4. visualize the three dimensional structure of molecules and relate it to stereochemistry.
5. predict the type of mechanism involved from the nature of the reactants and reaction conditions.
6. understand the mechanism and stereochemistry of alkane halogenation, nucleophilic substitution, elimination, and addition reactions.
7. relate the study of organic chemistry to biochemistry, medicine, and environmental studies.

Methods of Instruction: Classes will consist primarily of lecture and problem solving. The text will be followed as far as the general topics, but current material, especially relating to biochemical and medical aspects, will be added from other sources.

Students with disabilities: *This department believes in reasonably accommodating individuals with disabilities and complies with university policy established under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (1990) to provide for equal access and opportunity. Please communicate with your professor as to your specific needs so appropriate arrangements can be made through the department. In order for a student to receive disability accommodations under Section 504 of the Americans with Disabilities Act, he or she must schedule an individual meeting with the Director of Student Counseling Services immediately upon recognition of their disability (if their disability is known they must come in before the semester begins or make an appointment immediately upon receipt of their syllabi for the new semester). The student must bring with them written documentation from a medical physician and/or licensed clinician that verifies their disability. If the student has received prior accommodations, they must bring written documentation of those accommodations (example Individualized Education Plan from the school system). Documentation must be current (within 3 years). The student must meet with SCS face-to face and also attend two (2) additional follow up meetings (one mid semester before or after midterm examinations and the last one at the end of the semester). Please note that the student may also schedule additional meetings as needed for support through SCS as they work with their professor throughout the semester. Note: Students must come in each semester to complete their Individualized Accommodation Plan (example: MC student completes fall semester IAP plan and even if student is a continuing student for the spring semester they must come in again to complete their spring semester IAP plan).*