San José State University  
Department of Chemistry  
CHEM 8: Organic Chemistry

Instructor: Dr. David Brook  
Office location: SCI 166  
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Email: david.brook@.sjsu.edu  
Office hours: TuTh1200-1315 and by appointment  
Class days/time: Lecture: MW 0900-1015  
Final Exam: Wednesday Dec 11, 0715-0930  
Classroom: DH 250  
Prerequisites: Chem 1B with grade of C or better.

Online Resources

Copies of the course syllabus and other class information will be posted on my website. Other information may be sent via e-mail. Please make sure I have a valid email address for you that you check regularly.

Course Description and Goals

Introduction to the chemistry of carbon compounds for allied health majors and others requiring only 3 units of organic chemistry lecture.

An introduction to organic chemistry, covering introductory nomenclature, structure and stereochemistry, along with important reactions of the main classes of organic compounds

Organization: While the sequence of topics in the text provides a good foundation, the lectures may utilize material from later (and earlier) chapters. Schedule handouts will be distributed in class giving tentative dates for reading assignments and exams. You are encouraged to work all of the problems in the text; some problems on the exams will be taken from the text. Because the course is built up in a cumulative manner, material from the first chapters will be important to understanding later chapters. It is therefore important not to fall behind. You should seek help with material you may be having trouble with as you go along rather than deferring it to right before an exam.
Course Learning Objectives

• Application of key concepts from general chemistry including electronegativity, bonding (ionic and covalent), hybridization of atomic orbitals, molecular orbital theory and acids and bases to organic systems.
• Draw valence bond and Lewis dot structures for organic species, including formal charges.
• Draw skeletal structures for organic compounds.
• Name common classes of organic molecules using systematic (IUPAC) nomenclature.
• Learn common names for some key chemicals.
• Draw reaction mechanisms for some key reactions
• Recognize stereochemistry and be able to apply the Cahn-Ingold-Prelog system to designation of stereochemistry (E/Z or R/S).
• Learn many of the reactions of common functional groups in organic chemistry. Be able to predict reactions involving these functional groups.
• Understand the basic chemical and structural features of biomolecules, including lipids, carbohydrates, amino acids and proteins, and nucleic acids.

Texts and Other Items

• McMurry, Fundamentals of Organic Chemistry (7th ed.)
• A set of molecular models.

Mid-Term Exam Schedule: (tentative, but most likely not to change)
Mid-Term 1 Wednesday, Sept 18
Mid-Term 2 Wednesday, Oct 16
Mid-Term 3 Wednesday Nov 20

Final Exam:
Weds Dec 11, 0715-0930

Grading: The grading scheme is tentative but will probably consist of three exams (100 points each) and a final exam (250 points). The lowest of the three midterm grades will be dropped. Makeup exams will not be offered. If you believe there has been a grading error, please bring it to my attention within two calendar weeks after the exam has been returned; no regrades will be done after this period.

Extra Credit problems may be assigned as the instructor sees fit. These will be graded on an all or nothing basis.

Dropping and Adding

You are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. found at http://sa.sjsu.edu/student_conduct. You should be aware of the new deadlines and penalties for adding and dropping classes.
University Policies

Academic integrity

Students are expected to be familiar with the University’s Academic Integrity Policy. Please review this at http://sa.sjsu.edu/student_conduct. “Your own commitment to learning, as evidenced by your enrollment at San Jose State University and the University’s integrity policy, require you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical development.”

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person’s ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the Accessible Education Center (http://www.sjsu.edu/aec) to establish a record of their disability.

Special accommodations for exams require ample notice to the testing office and must be submitted to the instructor well in advance of the exam date.