CHEM 3053 Section 001
Organic Chemistry I Biological Emphasis

Professor: Indrajeet Sharma
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Web Site: http://learn.ou.edu/ under CHEM 3053 Sec 001

Office Hours: by appointment

Lectures: MWF: 9:30–10:20 am NH 0270

Holidays: Spring Vacation March 12–20

Action Center Meeting: Wagner Hall 135/140, Thursday 5:00pm–7:00pm

Assessment:
Quiz 1: Friday, Feb. 05 (In Class) 5%
Quiz 2: Friday, March 11 (In Class) 5%
Quiz 3: Friday, April 15 (In Class) 5%
Quiz 4: Friday, April 29 (In Class) 5%
Mid Term 1: Friday, Feb. 26 (In Class) 20%
Mid Term 2: Friday, April 01 (In Class) 20%

Final Exam: Wednesday, May 11, 8:00–10:00 AM 40%

In Class Assignments (1% each) Bonus Points Total: 105%

Grade on absolute scale: 100–90 (A+/A/A-), 80–89 (B), 79–70 (C), 69–60 (D)

No make-up quizzes will be given. A grade of 0 will be assigned to missed quizzes without documentation of a reasonable excuse for the absence. Make-up midterms will be allowed only upon providing documentation of a reasonable excuse for the absence. If no documentation is provided, a grade of 0 will be assigned.


This syllabus is subject to change at any point throughout the semester. Reasonable notice will be given for any changes made.
Policy Regarding Content of Syllabus

This syllabus is a guide. The instructor reserves the right to change any items contained in this syllabus. This includes, but is not limited to: course content, scheduled dates, and calculation of final grade.

Course Outline

Nomenclature: You are responsible for naming chains up to 12 carbons long for all classes of compound covered (alkanes, alkenes, alkynes, alcohols, thiols, halides, amines, aldehydes, ketones).

Topics:
1) Importance of Organic Chemistry
2) Lewis Structures and Bonds
3) Atomic Orbitals, Molecular Orbital Theory
4) Hybridization
5) VSEPR Theory
6) Dipole Moments and Hydrogen Bonding
7) Bond-Line Structures
8) Resonance
9) Acid/Base and pKₐ
10) Conformational Analysis (Acyclic and Cyclic Alkanes)
11) Stereochemistry
12) Fischer projections and Resolution of enantiomers
13) Reaction co-ordinate diagrams
14) Sₙ₂ reactions
15) Sₙ₁ reactions
16) Carbocation Rearrangement
17) E₁ reactions
18) E₂ reactions
19) Additions to Alkenes
20) Additions to Alkynes
21) Radical reactions
22) Synthesis and Retrosynthetic Analysis
23) Alcohols
24) Ethers
25) Epoxides

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University Policy Regarding Reasonable Accommodations

The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the instructor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173.

Adjustments for Pregnancy/Childbirth Related Issues

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact me as soon as possible to discuss. Generally, modifications will be made where medically necessary and similar in scope to accommodations based on temporary disability. Please see www.ou.edu/content/eoo/pregnancyfaqs.html for commonly asked questions.

Title IX Resources

For any concerns regarding gender-based discrimination, sexual harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a variety of resources, including advocates on-call 24.7, counseling services, mutual no contact orders, scheduling adjustments and disciplinary sanctions against the perpetrator. Please contact the Sexual Misconduct Office 405-325-2215 (8-5) or the Sexual Assault Response Team 405-615-0013 (24.7) to learn more or to report an incident.

Religious Holidays

It is the policy of the University to excuse the absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required classwork that may fall on religious holidays.

University Policy Regarding Codes of Behavior

Each student should acquaint himself or herself with the University's codes, policies, and procedures involving academic misconduct, grievances, sexual and ethnic harassment, and discrimination based on physical handicap. Students engaging in academic misconduct (including cheating, plagiarism, and any other action that may improperly affect evaluation) will be subject to sanctions in accordance with the Norman Campus Academic Misconduct Code. Grade sanctions could range from a zero for the specific assignment to an "F" for the course. University sanctions can be severe, i.e., expulsion from the University.

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Additional Information

Academic Misconduct: Information on the University of Oklahoma’s policies toward academic misconduct can be found at http://integrity.ou.edu/students_guide.html.

Special Accommodations: Students requiring accommodations in this course are to be registered with the Disability Resource Center prior to receiving accommodations. Information for the Disability Resource Center can be found at: https://www.ou.edu/content/drc/home/students/accommodations.html.

Behavior: Information on the University of Oklahoma’s policies toward student conduct can be found at http://judicial.ou.edu/.

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