

Eastern Oregon University
Course Syllabus

Number of Course: CHEM 334

Name of Course: Organic Chemistry I

Catalog Description:

Introductory study of the molecular structure, chemical properties, and reaction mechanisms of organic substances. Includes problems in organic synthesis.

Credit Hours: 4

Required Texts or Suggested Materials:

Are available at: <http://eou.bncollege.com/>

Prerequisites: CHEM 205 or equivalent.

Learning Outcomes:

The student should be able to:

1. Appreciate, identify, and draw the major structural classes of organic compounds.
2. Describe and apply IUPAC and non-IUPAC rules for organic compound nomenclature.
3. Compare similar and dissimilar features of organic reaction mechanisms.
4. Predict and apply organic mechanistic outcomes to one-step reactions and multistep synthesis.
5. Describe and apply stereochemical concepts to organic compounds.
6. Integrate stereochemistry into the schema of organic reactions.
7. Apply selected spectroscopic based instrumental methods to the structural elucidation of organic compounds.

Course Requirements: *Major assignments, attendance expectations*

Grading Policies:

Point Distribution

Three Examinations	100 points each + 10 points extra credit
Final Examination	100 points + 10 points extra credit
Four to six Assignments	~100 points
Total	~500 points

Grading

90%-100%+	= A
80%-89%	= B
65%-79%	= C
60%-64%	= D
Less than 60%	= F

Individual students' grades are based on a percentage of the top student's point total in the current year's class or 94% of the total possible points, whichever total is greater.

Means of Assessment:

This is a proficiency based class emphasizing mastery of course material content. Three in-class examinations (ca. 20% each) and a final examination (ca. 20%). The final examination will cover the course material after the third exam. Exams will be fill in and essay type questions emphasizing nomenclature, reaction mechanisms, and one-step and multistep synthesis problems. Four or five homework assignments will be assigned for a total of approximately 20%.

Brief Outline of Course:

- I. Introduction to the Study of Organic Compounds
 - A. Electronic Structures and Bonding
 - B. Acid and Base Concepts
 - C. An Introduction to Organic Compounds
 - D. Structural Representations
 - E. Nomenclature and Physical Properties
- II. Identification of Organic Compounds; Mass Spectrometry and Infrared Spectroscopy
- III. Introduction to Organic Reactions
 - A. Thermodynamics and Kinetics
 - B. Reaction Mechanisms
 - C. Reactions of Alkenes
 - D. Reactions of Alkynes
 - E. Multistep Synthesis
- IV. Stereochemistry
 - A. Spatial Arrangements of Atoms
 - B. The Stereochemistry of Addition Reactions
- V. Electron Delocalization and Resonance

Writing Center Statements:***For on-campus courses***

The Writing Center provides a place — physical or virtual — where every EOU writer can find an interested, responsive reader. Writing tutorials are free of charge for EOU's undergraduate and graduate students who are writing for any course at any level, or who are writing resumes, job letters, graduate applications, and more. Go to eou.mywconline.com to schedule an appointment in the Writing Center (Loso Hall 234).

For online or on-site courses

The Writing Center provides a place — physical or virtual — where every EOU writer can find an interested, responsive reader. Writing tutorials are free of charge for EOU students writing for any undergraduate course. Go to [EOU's eTutoring page](#) to submit a paper to a writing tutor.

For graduate courses

The Writing Center provides a place — physical or virtual — where every EOU writer can find an interested, responsive reader. Writing tutorials are free of charge for EOU students writing for any graduate course. Go to [EOU's eTutoring page](#) to submit a paper to a writing tutor. Click on [Graduate Students How To](#) for information about tagging your submission.

Classroom Decorum:**Academic Misconduct Policy:**

Eastern Oregon University places a high value upon the integrity of its student scholars. Any student found responsible for an act of academic misconduct (including but not limited to cheating, unauthorized collaboration, fabrication, facilitation, plagiarism or tampering) may be subject to having his or her grade reduced in the course in question, being placed on probation or suspended from the University, or a combination of these. (Please see the Student Handbook online at <http://www.eou.edu/sse/student-handbook/>).

Accommodations/Students with Disabilities policy:

Any student who feels he or she may need an accommodation for any type of disability, must contact the Disability Services Office in Loso Hall, Room 234. Phone: 541-962-3081.

Disclaimer:

This standard syllabus provides only general information on the course. For those enrolled in the course a detailed syllabus will be provided by the Instructor at the beginning of the term. Please keep in mind that not all courses are offered every year. Consult Webster for scheduling information.

Date: 2018