

Chemistry 2323-002 Fall 2012

Contact Information

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Office Hours: M 2:00 – 5:00 PM

TTH 8:30 – 9:30 AM

W 8:00 – 9:00 PM

W 2:00 – 4:00 PM

TH 1:30 – 3:30 PM

Course Information

Department: Physical Sciences

Start Date: 08/27/2012

End Date: 12/13/2012

Modality: Face-to-Face

Credits: 3 hours

Lecture: MWF 9:00 – 9:50 AM

Required Reading/ Material

Organic Chemistry 8th edition, J. McMurry, Brooks/Cole Publishing, 2012.

Suggested: Nomenclature 2271

Course Prerequisites

CHEM 1312

Corequisite: CHEM 2123

ICOs

1, 2, 3

Course Description

A lecture course that presents a mechanistic approach to an integrated study of aliphatic, alicyclic, and aromatic hydrocarbons and includes an introduction to instrumental methods applicable to organic chemistry. Involvement in reading information or problems and using critical thinking skills to organize the information so as to arrive at an answer.

Course Objectives and Learning Outcomes

The objective in any chemistry course is to develop problem-solving skills. To study the rules of nomenclature for organic compounds by functional groups, structures and their properties and synthesis of organic compounds.

Upon completion of this course, students will be able to:

- (1) Compare and contrast the structures, properties, and reactions of aliphatic hydrocarbons, alkyl halides, alcohols, and ethers.
- (2) Formulate reaction mechanisms for the synthesis and transformation of the above functional groups.

- (3) Perform and justify the separation techniques used in purifying organic compounds.
- (4) Interpret experimental data obtained from classical and spectroscopic methods used in characterizing organic compounds.

Course Attendance

Attendance is required and will be checked. To effectively master the material, your **attendance** for each class is necessary.

Academic Dishonesty

Students are responsible for understanding the code of Student Conduct found in the OC Student Handbook. Academic Dishonesty will not be tolerated in this course. Cheating in any form will be handled accordingly.

Students with Disability

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the ADA of 1990. Students with special needs or issues pertaining to access and participation in this class must contact me immediately. Further, you may call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Cell Phone

When class begins, all phones need to be on silent or vibrate. If it is necessary for you to answer your phone or text message, then you need to step out into the hallway. If you consistently text message while in class, you will be asked to leave the class. Your phone **cannot** be used as a calculator on quizzes or exams.

Course Grading

Exams	60%
Quizzes	10%
Homework	10%
Final Exam	20%

Homework

Assignments will be made, collected and graded. The homework assignments are to help you prepare for the exams because variations of these will be on the exam. You should attempt to work all of the homework questions.

Quizzes

There will be a short quiz given each week. The quizzes will include questions and problems over the current material but may require some knowledge of the previous material. Your lowest quiz grade will be dropped at the end of the semester. **If you miss a quiz, be prepared to make it up on the day you return to class, otherwise you will not be allowed to make it up.**

Examinations

(tentatively)

First Exam: Monday, September 24th
Second Exam: Monday, October 22nd
Third Exam: Monday, November 19st
Final Exam: Wednesday, December 12th, at 8:00 a.m.-10:30 a.m.

Make-Up Exam

A make-up exam will be given on the last day of class. If you miss an exam for any reason you will have the opportunity to take this exam. This exam may also be taken by any student who may wish to replace a lower exam. The make-up exam will be multiple choice questions covering the entire semester.

Final Exam

The final exam is comprehensive over the entire semester.

HELP

Please do not wait until the last minute to get help! Come in during office hours or make an appointment to see **ME** as soon as a concept or problem gives you difficulty. I am here to help you make it through this experience.

Expectations for Engagement – Face to Face Learning

To help make the learning experience fulfilling and rewarding, the following Expectations for Engagement provide the parameters for reasonable engagement between students and instructors for the learning environment. Students and instructors are welcome to exceed these requirements.

Reasonable Expectations of Engagement for Instructors

1. As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will
 - provided my contact information at the beginning of the syllabus;
 - respond to all messages in a timely manner through telephone, email, or next classroom contact; and,
 - notify students of any extended times that I will be unavailable and provide them with alternative contact information (for me or for my supervisor) in case of emergencies during the time I'm unavailable.
2. As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will
 - provide clear information about grading policies and assignment requirements in the course syllabus, and
 - communicate any changes to assignments and/or to the course calendar to students as quickly as possible.

3. As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will
 - return classroom activities and homework within one week of the due date and
 - provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.

Reasonable Expectations of Engagement for Students

1. As a student, I understand that I am responsible for keeping up with the course. To help with this, I will
 - attend the course regularly and line up alternative transportation in case my primary means of transportation is unavailable;
 - recognize that the college provides free wi-fi, computer labs, and library resources during regular campus hours to help me with completing my assignments; and,
 - understand that my instructor does not have to accept my technical issues as a legitimate reason for late or missing work if my personal computer equipment or internet service is unreliable.
2. As a student, I understand that it is my responsibility to communicate quickly with the instructor any issue or emergency that will impact my involvement with or performance in the class. This includes, but is not limited to,
 - missing class when a major test is planned or a major assignment is due;
 - having trouble submitting assignments;
 - dealing with a traumatic personal event; and,
 - having my work or childcare schedule changed so that my classroom attendance is affected.
3. As a student, I understand that it is my responsibility to understand course material and requirements and to keep up with the course calendar. While my instructor is available for help and clarification, I will
 - seek out help from my instructor and/or from tutors;
 - ask questions if I don't understand; and,
 - attend class regularly to keep up with assignments and announcements.

Learning Resource Center (Library)

The Library, known as the [Learning Resources Center](#), provides research assistance via the [LRC's catalog \(print books, videos, e-books\)](#) and [databases \(journal and magazine articles\)](#). [Research guides](#) covering specific subject areas, [tutorials](#), and the "[Ask a Librarian](#) " service provide additional help.

Student E-mail

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

Student Portal

Please access your Odessa College Student E-mail, by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

Technical Support

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm.

Important School Policies

For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the [Odessa College Student Handbook](#).

Course Schedule (tentatively)

Chapter	Topic	Description	
I	Structure and Bonding	Review of General Chemistry	Quiz
II	Polar Covalent Bonds: Acids and Bases	Bronsted-Lowry and Lewis theories	Quiz
III	Organic Compounds: Alkanes and their Stereochemistry	Naming and Properties of Alkanes	Quiz
			1st Exam
IV	Organic Compounds: Cycloalkanes and their Stereochemistry	Isomers and Conformations	Quiz
V	Stereochemistry at Tetrahedral Centers	Optical Activity and Chirality	Quiz
VI	An Overview of Organic Reactions	Describing Organic reactions	Quiz
			2nd Exam
VII	Alkenes: Structure and Reactivity	Markovnikov's Rule And carbocation	Quiz
VIII	Alkenes: Reactions and Synthesis	Reactions using Alkenes	Quiz
IX	Alkynes: An Introduction to Organic Synthesis	Reactions using Alkynes and developing synthesis proceses	Quiz
			3rd Exam
X	Organohalides	Reactions using Alkyl Halides	Quiz
XI	Reactions of Alkyl Halides: Nucleophilic Substitutions and Eliminations	SN1 SN2 E1 and E2 reactions	Quiz
			Final Exam

