CHEMISTRY
COLORADO STATE UNIVERSITY

CHEM 341: Organic Chemistry I
Spring 2018 Syllabus

Dr. Carlos Olivo
Office: A105 Chemistry
Class Meeting Times: 9:00 – 9:50 am, MWF in CHEM A101
Office hours: Tuesdays and Thursdays, 9:00-10:30 am at the CLeRC (Yates 414)

Teaching Assistant: Andrea Westlie
Office hours: TBD

Course Objectives

Chemistry 341 introduces basic principles of organic structure and reactivity. Students will learn how to properly interpret conventional representations of organic structures, and how to relate structural details to molecular stability. They will be introduced to the "curved-arrow" formalism for depicting electron movement and bond reorganization during reactions. They will learn to predict the outcomes of simple chemical reactions on the basis of reactive substructures and detailed mechanistic understanding. Finally, they will be exposed to some of the spectroscopic methods routinely used to characterize organic molecules.

Prerequisite

The prerequisite for CHEM 341 is CHEM 113 (General Chemistry II). Many fundamental topics from general chemistry serve as starting points for our discussion of organic structure. The following are of particular importance: atomic orbital shapes and stabilities, formation of simple covalent bonds by atomic orbital mixing, electronegativity, bond dipoles, Lewis structures, formal charge.

Textbook and Materials

We will be using Jones and Fleming "*Organic Chemistry"* 5th ed. (Norton, ISBN 978-0-393-91303-3). A study guide is also available at the bookstore. The study guide is not required, but may be of use. Other Organic Chemistry texts might be useful as well. Molecular model sets are recommended and you may use them during exams. You may not share or exchange molecular model sets during the exam.

Canvas

A class Canvas site has been published. If you do not have access to it, send me an email. You will be held responsible for any and all information posted on the Canvas site. Use the Canvas Inbox to send message to the instructor. Appropriate language and courteous etiquette is expected.

Exams

There will be 3 midterm exams and a final (*125 pts. each: 35 MC questions @ 3pts/ea and 5 FR questions @ 4pts/ea*). The midterms will be held on the following Tuesday evenings: 2/13, 3/6, 4/17. The exams will run from 5:00-6:50 pm at **CHEM A103**. No student will be allowed to start an exam later than 5:30 pm, and no student will be allowed to leave the exam before that time. You may have only the following materials at your testing space:

- Pencils and erasers
- Your photo ID (preferably your RamCard)
- Your molecular model set (optional)

No make-up exams will be given except for official University-sanctioned trips or circumstances completely beyond your control (e.g., hospitalization). I will determine if the circumstances warrant one of these exceptions. *However, your lowest exam score on Exams 1-3 may be replaced with the final exam score, if the final exam score is higher*.

The primary focus of each midterm will be any as-yet untested material up to and including the Friday before the exam. Although previously tested topics will not be a focus, the subject of organic chemistry is inherently cumulative, and *you will be held responsible for any material from past exams*.

Molecular models are allowed and strongly encouraged on exams. They can be purchased from the bookstore or online. The exams are closed note, closed book, closed Internet, and closed adjacent student's exam. None of these are acceptable sources of information during an exam. Calculators will not be needed, and are thus not permitted.

Exam re-grade requests must be received not later than one week after exams are returned (it is your responsibility to pick the exam up in a timely fashion). In all cases (except arithmetic errors) the entire exam may be re-graded, and scores may go up or down. Changing answers in any way before submission for a re-grade is not permitted and will be viewed as a very serious violation of the University's Academic Integrity policy.

The final exam is comprehensive, and no make-up exams will be given, except to accommodate the University prohibition against forcing students to take three or more final exams on the same day. If you have such a conflict, you must notify me at least two weeks prior to the final exam, to allow for negotiation between the courses involved (per University policy). Students with special accommodations should schedule their exams through RDS one week in advance.

Clickers

You can only earn "clicks" for answering questions in person as follows: participating in a clicker question = +1 click; correct answer = +1 more click. Clicks are converted to course points. It is your responsibility to register you Clicker remote through Canvas.

Quizzes

Quizzes will be embedded in Canvas. You will have one hour to complete the quiz. Quizzes will be posted as the semester progresses and will only be available for a limited time. It is your responsibility to keep track of the quizzes.

Grading

Your course grade will be determined as follows:

Criteria	Points	Percentage
Exam 1	125	71.4%
Exam 2	125	
Exam 3	125	
Final Exam	125	
Clickers	100	14.3%
Quizzes	100	14.3%
Total	***700***	***100%***

Academic Integrity

This course will adhere to the Academic Integrity Policy Colorado State University as outlined in the Student Conduct Code (https://resolutioncenter.colostate.edu/conduct-code/). At a minimum, violations will result in a grading penalty in this course and a report to the Office of Conflict Resolution and Student Conduct Services. Penalties can (and do) range from reduced scores on assignments (including zeros) to failure in the course.

Work Outside of Class:

Experience has shown that the students who devote 2-3 hours or more to quality study outside of class for every hour spent in class will be more successful than the students who do not spend this time. Examples of quality study activities include:

- Working practice problems, with the goal of understanding the solutions such that you could explain them to another student, and connecting them to lecture material
- Reviewing lecture notes, connecting concepts from multiple lectures
- *Actively* participating in study groups