Organic Chemistry I Lecturing Syllabus
University of Alaska Fairbanks
Fall 2013

Course Information:
Chemistry F321, Organic Chemistry I, 4.0 Credits (including laboratory section)
Murie 104, MWF 1-2 pm
Prerequisite: Chem 106 with grade of C or better.

Instructor Information:
Instructor: Professor Fenton Heirtzler
Office: Rm. 161, Reichardt Building
Office Hours: Tues. & Thurs., 2:00 – 4:00 or by appointment
Website: http://www.uaf.edu/chem/faculty/fheirtzler

Course Description:
This course will focus on the theory of organic chemistry, i.e. the chemistry of molecules containing carbon from the perspective of structure/reactivity relationships. Topics covered will be bonding, functionality, reactivity, synthesis, and nomenclature. The course mark will reflect contributions from homework, exams and classroom participation.

Course Goals:
1. Understand fundamental concepts of bonding of organic compounds.
2. Understand reactions and associated mechanisms of simple organic compounds.
3. Learn how to relate conformations of hydrocarbons to stability.
4. Understand the basic concepts of stereochemistry of organic compounds.

Student Learning Outcomes:
At the end of this course, students should be proficient in:
1. Being able to identify and draw common organic functional groups.
2. Naming hydrocarbons, including alkanes, alkenes, alkynes, dienes and aromatic compounds.
3. Applying conformational analysis to cyclohexane and associated derivatives.
4. Predicting the reactivity of alkanes, alkenes, alkynes, and dienes.
5. Knowledge of commons reagents associated with the interconversion of functional groups in simple organic compounds.
6. Drawing and interpreting 3D structures of stereoisomers.
7. Predicting and writing mechanisms of reactions of simple organic compounds based on fundamental concepts of acid/base chemistry (nucleophiles and electrophiles).

Instructional Methods:
- The instructor will lecture on the theoretical aspects of organic chemistry, principally using the classroom Whiteboard to pace his lectures.
- Classroom participation will be judged through students’ use of Turning Technologies clicker polling.
Homework assignments will be posted via Sapling Learning, at https://www.saplinglearning.com/. SaplingLearning.com Price (per student per term): $29.99. Homework assignments’ due dates will be posted on the Sapling Learning website.

Course Materials:
- Required:
  - ACS Organic Chemistry Study Guide (cheaper over Amazon.com)
  - Term subscription to Sapling Learning course for Wade’s organic chemistry
  - *Turning Technologies/Response Card* clicker (available from UAF Bookstore)
- Recommended:
  - HGS 1003 Molecular Structure Model with Manual (or comparable)

Schedule of Lecturing and Examinations:
Fri. Sept. 6 – Fri. Sept. 20: Chapters 1 - 2
  - Mon. Sept. 23: EXAM #1 (Chapters 1-2)
  - Fri Oct 11: EXAM #2 (Chapters 3 – 4)
  - Wed. Oct. 30: EXAM #3 (Chapters 5 – 6)
Fri. Nov. 1 – Fri. Nov. 15: Chapters 7 - 8
  - Mon. Nov. 18: EXAM #4 (Chapters 7 – 8)
Wed. Nov. 20 – Wed. Dec. 4: Chapters 9 - 10
  - Thurs. Nov 28 – Fri. Nov. 29: Holiday
  - Fri. Dec. 6: EXAM #5 (Chapters 9 -10)
Mon. Dec. 9 – Fri., Dec. 13: Chapter 11
  - Mon. Dec. 16, 1 - 3 p.m.: FINAL EXAM (emphasis on Chapter 11)

Marking breakdown:
Exam #1 – Exam #5 @ 100 points each
Final Exam @ 200 points
Web-based homework assignments (Sapling Learning) for 240 points:
  - (11 homework assignments means 22 points/homework assignment)
Attendance/clickers 30 lectures x 2 points/lecture = 60 points
Laboratory reports: 6 reports x 55 points/report = 330 points.
Total mark = 1000 points (for the lecture) + 330 points for the lab.
**Grading:**
90-100% A  
80-89% B  
70-79% C  
60-69% D  
<60% F

**Notes & Policies:**
1. Use of molecular models during the exams is encouraged.
2. The Final Exam is scheduled for Dec. 16 (Mon.) 1-3 pm.
3. Class attendance is expected and role will be taken.
4. Make-up exams are only allowed in the event of a legitimate excuse as determined by the instructor. Oversleeping and social events are not excuses. Exams must be made up as soon as possible. These make-up exams will be scheduled at later date so that all who missed the exam can attend.
5. Cheating will result in a grade of F for the course.
6. The course will move quickly and it is important to keep up on a daily basis. The best way to do this is to read the text, perform Sapling Learning homework on a timely basis, attend class and ask questions during the lecture.

**Disabilities Services:**
The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. Students with documented disabilities who may need reasonable academic accommodations should discuss these with me during the first two weeks of class. I will work with the Office of Disabilities Services (*208 WHIT, 474-5655) to provide reasonable accommodation to students with disabilities. You will need to provide documentation of your disability to Disability Services.