CHEMISTRY 4-172       Advanced Organic Chemistry         Fall 2012

Time:       MWF 9:30 - 10:20 am; W228 CB

Instructor:  Professor Hien Nguyen
Office:  E457 Chemistry Building
Phone:  319-384-1887
Email: hien-nguyen@uiowa.edu
Office Hours:  Monday and Friday 1:00 - 2:30 pm or by appointment

Grader:  Zhen Li
Email: zhen-li@uiowa.edu

Textbooks:  Advanced Organic Chemistry (Highly Recommended)
Molecular Model Set (Required)
Undergraduate Organic Chemistry Textbook (Highly Recommended)

Exams:  MIDTERM I  Wednesday, 10/03  6:30 pm – 9:30 pm, W228 CB
MIDTERM II  Wednesday, 11/28  6:30 pm – 9:30 pm, W228 CB
FINAL EXAM  Take-Home Exam

Grading:  Unannounced Quizzes  100
Problem Sets  250
Seminars  50
Midterm Exam I  100
Midterm Exam II  100
Final Exam  100

Exams:  If you know that you will miss an exam, please inform me at least two weeks in advance and provide the appropriate written documentation. I will then rearrange the time that will fit into your schedule. All exams are cumulative including the final exam.

Quizzes:  There will be unannounced quizzes at the beginning of the lecture. Seven or eight quizzes will be given over the course of the semester, and the highest five quizzes will be counted in your final grade. There will be no make-up quizzes.

Homework:  There will be 8-10 problem sets throughout the course of the semester. Only five problem sets will be collected and graded. You MUST WORK independently on graded problem sets and are NOT ALLOWED to discuss with your classmates or anyone else. Failure to follow this policy will result in an “F” for this course.

Seminars:  In order to receive full credit for seminars, you MUST attend five seminars given by the invited speakers in the following departments or divisions:
A) Chemistry Colloquium: Friday at 3:30 pm in W207 PBB
B) Organic Division Seminar: Thursday at 12:30 pm in 131 PC
C) Division of Medicinal Chemistry and Natural Products, College of Pharmacy
   Tuesday at 4:00 pm in S538 PHAR (Pharmacy Building)
D) Department of Biochemistry Seminar: Thursday at 10:30 am in 2117 MERF

After the seminar, you must write a half-page abstract and then electronically send it to my email. In your abstract, you must include the name of the speaker, his/her seminar title, and a brief summary of his/her research presentation. The abstract is due within a week after you attend the seminar. I WILL NOT accept any abstracts after one week of the seminar.

Course Administration: A majority of course business can be achieved at the Chemistry Center, E225 CB. The hours are 8 AM -12 Noon & 12:30 – 4:30 PM on M-F, and the contact person is Ms. Jessica Alberhasky (335-1341). The following issues SHOULD be achieved at the Chemistry Center: drop/add forms, section changes, and TA office hours.

Complaints: complaints and appeals can be filed at the Department of Chemistry offices located in E331 CB (335-1350).

Tentative Schedule:
   Reading materials for this course – Handouts are posted on ICON

   1. CONFORMATIONAL ANALYSIS
   2. NUCLEOPHILIC SUBSTITUTION
   3. NEIGHBORING GROUP PARTICIPATION
   4. BIOLOGICAL NUCLEOPHILIC SUBSTITUTION
   5. PHOSPORYL TRANSFER REACTIONS
   6. NUCLEOPHILIC ADDITIONS
   7. ACYL TRANSFER
   8. CARBANION REACTIONS
   9. MICHAEL ADDITION AND ELIMINATION REACTIONS
  10. CARBOHYDRATES
  11. AMINO ACIDS
  12. OXIDATION AND REDUCTION
College Statement

Administrative Home: The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Questions may be addressed to 120 Schaeffer Hall or see the CLAS Student Academic Handbook [www.clas.uiowa.edu/students/academic_handbook/index.shtml].

Electronic Communication: University policy specifies that students are responsible for all official correspondences sent to their standard University of Iowa e-mail address (@uiowa.edu). Students should check this account frequently. (Operations Manual, III.15.2. Scroll down to k.11.)

Academic Fraud: Plagiarism and any other activities when students present work that is not their own are academic fraud. Academic fraud is a serious matter and is reported to the departmental DEO and to the Associate Dean for Undergraduate Programs and Curriculum. Instructors and DEOs decide on appropriate consequences at the departmental level while the Associate Dean enforces additional consequences at the collegiate level. See the CLAS Student Academic Handbook.

Making a Suggestion or a Complaint: Students with a suggestion or complaint should first visit the instructor, then the course supervisor, and then the departmental DEO. Complaints must be made within six months of the incident. See the CLAS Student Academic Handbook.

Accommodations for Disabilities: A student seeking academic accommodations should first register with Student Disability Services and then meet privately with the course instructor to make arrangements. See www.uiowa.edu/~sds/ for more information.

Understanding Sexual Harassment: Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the University Comprehensive Guide on Sexual Harassment at www.uiowa.edu/~eod/policies/sexual-harassment-guide/index.html for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather: In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. (Operations Manual, IV.16.14. Scroll down to e. h. and i.)