Chemistry 211/212 – Principles of Organic Chemistry - 8/26/08

Course Syllabus

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Text: Organic Chemistry – Structure and Function.
K. Peter C. Vollhard and Neil E. Schore
W. H. Freeman and Company, New York
Any edition after the third (included) will do…

Lecture Topics (211 – Fall):

1) Structure & Bonding in Organic Molecules (Chapter 1)
2) Alkanes (Chapter 2)
3) Reactions of Alkanes (Chapter 3)
4) Cyclic Alkanes (Chapter 4)
5) Stereoisomerism (Chapter 5)
6) Properties & Reactions of Haloalkanes (Chapters 6 & 7)
7) Hydroxy Functional Groups (Chapter 8)
8) Reactions of Alcohols and Chemistry of Ethers (Chapter 9)
9) Using NMR to Deduce Structure (Chapter 10)
10) Alkenes and Infrared Spectroscopy (Chapters 11 & 12)

Lecture Topics (212 – Spring):

1) Alkynes (Chapter 13)
2) Delocalized Pi Systems and UV Spectroscopy (Chapter 14)
3) Aromaticity (Chapters 15 & 16)
4) Aldehydes and Ketones (Chapter 17)
5) Enols and Ketones (Chapter 18)
6) Carboxylic Acids, Derivatives, and MS (Chapter 19 & 20)
7) Amines and Derivatives (Chapter 21)
8) Chemistry of Benzene Derivatives (Chapter 22)
9) Ester Enolates and Acyl Anions (Chapter 23)
10) Carbohydrates (Chapter 24)

Course Outcomes and Learning Assessment: The 211-212 course sequence should give you a solid introduction into Organic Chemistry. In addition to learning the materials covered in the Topics outlined above, these courses will give you an understanding of why Organic Chemistry is critical to understand subjects ranging from material sciences to medicine. Upon completion of the 211-212 sequence, you should expect to have a solid background on the reactivity of different organic compounds, how these compounds can be made synthetically, and the mechanism by which they interact with each other (i.e., how small molecules affect the way proteins and enzymes do their job). This background will be critical for students taking Biochemistry, Molecular Biology, and advanced Organic Chemistry courses in their Junior and Senior years.

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As described in the following sections, you will be able to assess your progress towards the expected goals by working regularly on problem sets. These will test your knowledge on the subject as the topics are discussed in class, and will also allow you to identify deficiencies and take corrective action before major examinations.

Homework: Homework problem sets and projects will be assigned roughly weekly. You are encouraged to work on these assignments in groups; however, everyone must write up their own answers. Assignments are due by 5 pm on the indicated date. Late assignments will be penalized 5% per day late (the weekend has two days).

Exams: There will be three exams, and the last one will be comprehensive. All exams will be scheduled separately from regular classes, and we will have to decide when and where. The definitive schedule will try to accommodate you (the whole class) as much as possible. All exams will be 'blue book" type, meaning no multiple choice questions.

Attendance: Attendance to both lecture and recitation is optional, but I obviously recommend you come to lecture.

Make-up exams: I will discourage students from taking an exam at any time other than the one scheduled, except for medical reasons or when the exam schedule decided by the majority of the class conflicts with that student's class schedule.

Help Sessions/Office Hours: Prior to examinations, additional recitations may be conducted on an as-needed-and-requested basis. You can also make individual appointments with me to go over questions and problems you may have.

Grading:	Three midterm exams:	3 x 25 % = 75 %
	Homework problem sets:	25 %

Academic Integrity: Academic integrity is at the center of the educational experience at USP. Students are therefore expected to uphold the highest standards of academic integrity and not engage in nor tolerate academic dishonesty. Academic dishonesty includes, but is not limited to, fabrication, cheating or plagiarism. Any violation of academic integrity will be investigated and, where warranted, the student will receive appropriate sanctions through the University's Student Conduct Process. Please familiarize yourself with the current USP Student Handbook. In particular, adherence to the Student Conduct Policy and Academic Integrity Policy will help to ensure that your learning and living experiences are founded on integrity.

Student Disability Support Services (SDSS): USP supports the educational endeavors of all students, including students with disabilities. The American's with Disabilities Act (ADA) defines a disability as a mental or physical impairment that substantially limits one or more major life activities. If you believe you have a disability that may impact your ability to fulfill your course or degree requirements, and you would like more information on applying for an accommodation, please contact the Assistant Dean of Students who serves as the SDSS Coordinator at 215-596-8950.