

New England School of Acupuncture
Organic Chemistry
Revised (4/8/02) Syllabus for Spring 2002

Instructor: Tyler Heibeck

Phone Number:

Email Address:

Course Web Site:

Course Time: Mondays 7 – 10 p.m. September 28 – May 13, 2002.

Course Overview:

This course serves as an introduction to organic chemical reactivity, structure, and nomenclature. The text uses a functional group based approach to the instruction of the subject. We will use this style as framework (with some departure), emphasizing the fundamental logic of organic chemistry and not just memorization of reactions. To that end material may be covered in lecture that is not present in the text. This course will act as a background for biochemistry.

Text Book:

John McMurray, Mary E. Castellion. *Fundamentals of General, Organic, and Biological Chemistry*. 3rd Ed. Prentice Hill: New Jersey (1999)

Grading system and Lecture Operation

The classes will consist of two periods with an intermediate break. The early portion of the lecture will be designated for going over problems and material from the previous lecture. Review sessions will be part open discussion and part guided problem solving. The remaining time will be used for lecture. Guidelines for attendance and academic conduct are as specified in the NESAs Student Handbook. Since the course only meets one a week, please direct schedule conflicts and concerns or questions regarding the course or material to the instructor in a timely manner. All inquiries, in turn, will be address promptly.

Problem sets will be assigned (from the text or produced by the instructor) during the semester, but will not be collected or graded. Answers will be provided if not found in the book. You are encouraged to complete them to aid in your learning of the subject material. These questions will be used as launching points for the review session and selected problems will be discussed. You will find the review sessions more effective if you have thought about and practiced the material. Regarding lectures, it is best to read the recommended sections of the text and do some in-text problems before the lecture. Most find lectures more rewarding if their minds are not virgin to the material being presented.

Three exams will be given during the semester and a cumulative final exam will be given the last day of class. Each section of the first exam will count as one exam, giving an equivalent of four graded exams. The lowest exam grade will be dropped and the remaining exams will each count toward 20% of the final grade. The final exam will account for 40% of the final grade. The duration and format of all exams will be announced before each exam session. Note that an exam grade cannot replace that of the final exam. You must receive a passing grade ($\geq 70\%$) on the final to pass the course. Final letter grades will be assigned in accordance with the published NESAs grade ranges. Individual exams will not be curved or assigned letter grades. A curve may be applied to the final grade at the discretion of the instructor.

Tentative Lecture Schedule:

Date	Chapter(s)	Subject
1/28	12.1 – .5, 13.1, 13.3	Review of chemical concepts, functional groups. Introduction to organic chemistry and chemical structure.
2/4	12.6, 12.7, 12.9, 12.10, 13.2, 13.9, 13.10	Nomenclature and structure, alkanes, alkenes, alkynes, and aromatic compounds.
2/11	12.7, 12.8, 13.4 – .8	Properties and reactions. Alkanes, alkenes, alkynes.
2/18	13.11, 14.1 – .4	Reactions and properties. Aromatic compounds. Properties and naming of alcohols.
2/25	14.5 – .8	Reactions of alcohols and phenols. Acidity of alcohols. Review.
3/4	Exam	
3/11		Spring Break
3/18	14.8 – .11	Review exam. Structure, reactions, nomenclature of ethers, sulfur compounds.. Amines.
3/25	15.1 – .6	Review amines. Properties and naming of Aldehydes and Ketones..
4/1	16.1 – .4	Reactions of aldehydes and ketones
4/8	16.5 - .8	Exam on ethers, sulfur compounds, amines, aldehydes, and ketones in second part of session. Review in first part.
4/15	Review and Exam	Review exam. Carboxylic acids: properties, nomenclature, and acidity.
4/22	17.1 – .3	Carboxylic acids: reactions and derivatives
4/29	17.4 – .7	Exam carboxylic acids. Review for final.
5/6	Exam and Review	
5/13	Final	