Chemistry 113
Elementary Organic Chemistry
Spring, 2003, Syllabus

Instructor: **Dr. Bernhard Vogler** Office: MSB 3215 Telephone: 824-6267
E-mail: bvogler@chemistry.uah.edu Office Hours: MW 1:00-3:00, MSB 321
Teaching Assistant: **Rebecca Bifulco** Office: WH 345 Telephone: 682-8990
email: rbifulco@comcast.net Office Hours: TR 1:00-3:00, WH 345

Textbook: R.C. Atkins, F.A. Carey, "Organic Chemistry- A Brief Course", 3rd Ed. Recommended: Student Solutions Manual, "Organic Chemistry"; Darling molecular model kit (http://www.darlingmodels.com/kits.html), available through the Chemistry Club.

Meeting schedule: Tuesday, Thursday 3.55-5.15 MSC 104; Lab : Monday 12.45 – 3.45 WH 307

Prerequisite: Passing Grade in CH101 or higher level chemistry course.

Examinations: There will be three one-hour examinations throughout the term worth 100 points each. The examinations will be based upon class lectures, textbook reading, assigned homework problems. There will be no make-up, early, or late exams. There is also a **comprehensive, multiple choice Final Examination** (worth **200** points).

Grading: Grades will be based on your performance on the four exams, a 100 point special topics term paper, and the laboratory component. There are 500 exam points, the term paper worth 100 points, and the laboratory will constitute 200 points. Grades will be assigned based upon the following breakdown:

Grade	Points earned
A	640-800
B	520-639
C	400-519
D	320-399
F	Less than 320.

Term paper: Please get in touch with the instructor about term papers. You can choose your own topic, however, you should discuss this with the instructor in time. Term papers are due 04/02. If necessary the instructor is providing you with a topic for the term paper.

Homework Problems: Homework problems have been assigned below. These problems will not be collected or graded but examinations will be based upon them. The assigned homework problems have answers in the back of the text, but feel free to look over other problems and bring them up for discussion.

Attendance and General Citizenship: While attendance is not mandatory, you are strongly encouraged to attend all lectures. In addition, you are expected to show respect for your instructor and your classmates. If you must come to class late or leave early, do so quietly. While you are encouraged to ask questions and participate in class discussions, do not engage in other conversations while lectures are being conducted. Cell phones and pagers must be turned off while you are in class. You will be required to leave if you do not observe these rules.

Misconduct: Cheating on examinations will not be tolerated. Anyone found cheating (copying another exam, asking others for answers, or using notes or textbooks during an exam) will be asked to leave and will receive an "F" for the course. To avoid any doubts during exams, please do not talk with others and do not look at other exams.

General Information: Organic chemistry is not as terrible as the rumors say, but it is labor intensive. This is an elementary organic chemistry course and as such, is not designed to serve as a prerequisite for higher courses in chemistry. This course will be presented as an introduction to nomenclature, structure, functional groups, and properties of organic compounds and *not* as comprehensive survey. It is hoped, that this course is intellectually stimulating and entertaining. Note, however, that elementary organic chemistry does not mean *"easy" organic chemistry.* You should expect to spend at least 10 hours per week "outside" of class studying, doing homework problems, and writing up lab reports. It will be to your advantage to come to all the lectures (and to come to all the lectures on time, prepared to cover the material at hand, to ask questions, and to go over problems), to read(and re-read if necessary) the textbook, to work all of the homework problems, and not to fall behind. If you find yourself not grasping the material sufficiently, please get help immediately. Instructor office hours are available and you are encouraged to come and to get help, discuss problems (chemical, personal, whatever), etc.

Complaint Procedure: If you have difficulties or complaints related to this course, your first action usually should be to discuss them with your instructor. If such a discussion would be uncomfortable for you or fails to resolve your difficulties, you should contact Professor Jim Baird, Chair of the Chemistry Department. His telephone number is 824-6028. If you still are unsatisfied, you should discuss the matter with Dr. Debra Moriarity, Associate Dean of the College of Science. Dean Moriarity's phone number is 824-6605.

Special Needs Students: If you have special needs for this class that require a modification of seating, testing, or other class procedures you must discuss them fully with the instructor during the first two weeks of class.

Chemistry 113, Spring Semester, 2001
Calendar

Monday 01/06 Lab – Check in, Introduction , No experiment
Tuesday 01/07 Introduction Lecture - Chemical Bonding (Chapter 1)
Thursday 01/09 Lecture - Alkanes and Cycloalkanes (Chapter 2)
Monday 01/13 ***LAB Experiment 1 Hydrocarbons.***
Tuesday 01/14 Lecture – Alkanes and Cycloalkanes (Chapter 2)
Thursday 01/16 Lecture **–** Alkoholes and Alkylhalides (Chapter 3)
Monday 01/20 NO LAB **Martin Luther King Jr. Holiday - UAH Closed**
Tuesday 01/21 Lecture – Alkoholes and Alkylhalides (Chapter 3)
Thursday 01/23 Lecture **–** Alkenes and Alkynes –Structure and Preparation (Chapter 4)
Monday 01/27 ***LAB Experiment 2 Eugenol***
Tuesday 01/28 Lecture – Alkenes and Alkynes –Structure and Preparation/Reactions (Chapter 4/5)
Thursday 01/30 Lecture – Alkenes and Alkynes –Reactions (Chapter 5)
Monday 02/03***. LAB finish Experiment 2***
Tuesday 02/04 EXAM ONE (Chapters 1 –5)
Thursday 02/06 Lecture – Aromatic Compounds (Chapter 6)
Monday 02/10 ***LAB finish Experiment 2***
Tuesday 02/11 Lecture – Aromatic Compounds (Chapter 6)
Thursday 02/13 Lecture – Alcohols, Ethers and Phenols (Chapter 10)
Monday 02/17 ***LAB Experiment 3 - Aldehydes and Ketones.***
Tuesday 02/18 Lecture – Alcohols, Ethers and Phenols (Chapter 10)
Thursday 02/19 Lecture – Aldehydes and Ketones (Chapter 11)
Monday 02/24 ***LAB Experiment 4 – Synthesis of Aspirin.***
Tuesday 02/25 Lecture – Aldehydes and Ketones (Chapter 11)
Thursday 02/27 EXAM TWO (Chapters 6, 10, 11)
Monday 03/03 ***LAB Experiment 5 – Isolation of Caffeine, Begin Experiment 6.***
Tuesday 03/04 Lecture– Carboxylic Acids (Chapter 12)
Thursday 03/06 Lecture – Carboxylic Acid Derivatives (Chapter 13)
Monday 03/10 ***LAB Experiment 6 – Fermentation of Sucrose***
Tuesday 03/11 Lecture – Amines (Chapter 14)
Thursday 03/12 Lecture – Carbohydrates (Chapter 15)
Monday 03/17* ***LAB Experiment 7 – Isolation of lactose & caseine***
Tuesday 03/18 Lecture – Carbohydrates (Chapter 15)
Thursday 03/20 Lecture – Stereochemistry (Chapter 7)
SPRING BREAK 03/24-29
Monday 03/31 ***LAB Experiment 8 – Soap***
Tuesday 04/01 Lecture - Lipids (Chapter 16) – **TERM PAPERS DUE**
Thursday 04/02 Lecture - Lipids (Chapter 16
Monday 04/07 ***LAB Experiment 9 – Enzymes***
Tuesday 04/08 EXAM THREE (Chapters 7, 12- 16
Thursday 04/9 Lecture – Amino Acids, Peptides, Proteins
Monday 04/14 ***Lab clean up, check out***
Tuesday 04/15 Lecture – Amino Acids, Peptides, Proteins
Thursday 04/17 Review
Monday 04/21
Tuesday 04/22 Review
Thursday 04/24 FINAL EXAMINATION, 3:00-5:30 pm
*Last day to withdraw.
Suggested Homework Problems:
Chapter1: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.
Chapter2: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17.
Chapter3: 1, 2, 3, 4, 5, 6, 7, 8, 910, 11, 12, 13, 14, 15.
Chapter4: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17.
Chapter5: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.
Chapter6: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
Chapter7: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.
Chapter10: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
Chapter11: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.
Chapter12: 1, 2, 3, 4, 5, 6, 7, 8.
Chapter13: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.
Chapter14: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.
Chapter15: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.
Chapter16: 1, 2, 3, 4, 5, 6, 7.
Chapter17: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.