CHEMISTRY 332 - ORGANIC CHEMISTRY II
Spring 2007 (3 Hrs.)

ACHM 332 -- A continuation of ACHM 331. Three lecture hours per week.

MWF 10:00 - 10:50 a.m. SBDG 200

INSTRUCTOR: Dr. A Willbrand Office: 303 SBDG
Telephone: 641-3409 Aiken; 278-1967 N. Augusta, Augusta
email: annwillb@usca.edu

OFFICE HOURS: MWF 9:00 - 10:00 and 11:00 -12:00 or by appointment. Messages may be left on the notepad on my office door, with the Department secretary in 311 SBDG, or on my answering machine.


Study Guide/Solutions Manual, and Model Kit are highly recommended.

PRE-REQUISITE: ACHM 331; a grade of "C" or better is strongly recommended.

CO-REQUISITE: ACHM 332L: All regular degree seeking USCA students must be enrolled in the lecture and laboratory simultaneously. The only normal exception is someone who is repeating the lecture and has previously received credit for the laboratory. Although the laboratory is not required for engineering students planning to transfer to USC Columbia, it is strongly recommended. For any other exceptions, a student should petition the Scholastic Standings and Petitions Committee.

Testing: 4 Hour Exams - 100 Points Each 400 Points
Homework Sets - variable points* 200 Points
Paper 50 Points
Final Exam (Cumulative over both semesters) 200 Points
Total 850 Points

*Points for each homework set will be assigned as appropriate. The total will be adjusted to a 200 point scale at the end of the term. Each set will be assigned for one or two chapters.

The final course grades will be assigned relative to the class average and typical performance in this course. The grades typically fall in the following ranges but may vary some from semester to semester depending upon where the largest breaks between grades occur.

A $\geq$ 82
B 69 - 81
C 50 - 68
D 40 - 49
F < 40

FINAL EXAM:
The Final Exam is a standardized examination prepared by the Division of Chemical Education of the American Chemical Society covering the entire year's work. The grade on the exam will reflect the percent correct answers and a comparison to the national norms provided with the exam. It is scheduled for Friday, May 4 at 8:00 a.m.

HOMEWORK:

Homework is due on the designated day at class time, whether you attend class or not (except for emergencies). I expect you to call or email me as early as possible if you have a problem. After 1:00 p.m. on the due date, homework will be considered overdue and may be assessed a 10% late penalty (based on total points for the assignment). Homework turned in on subsequent days may be assessed an additional penalty. Exceptions will be made for legitimate emergencies on a case by case basis provided I receive prompt notification of the problem.

THE BOTTOM LINE WITH HOMEWORK IS THAT YOU ARE SUPPOSED TO USE IT AS A TOOL TO LEARN THE MATERIAL. THE LEARNING WILL OCCUR IF YOU MAKE YOUR BEST EFFORT AND DO NOT PROCRASTINATE. IF YOU ARE CONCERNED ONLY WITH THE GRADES, YOU MAY OR MAY NOT LEARN WHAT YOU ARE SUPPOSED TO LEARN. IF YOU PLACE YOUR EMPHASIS ON LEARNING, THE GRADES SHOULDN’T BE A CONCERN.

THE SAME IS TRUE FOR COPYING FROM OTHERS, OR CALLING EACH OTHER AND ASKING FOR HELP, DISCUSSING IT WITH OTHERS, ETC. ANYTHING THAT YOU DO TO AVOID FORCING YOURSELF TO SIT DOWN AND WORK WITH THE MATERIAL UNTIL YOU KNOW AND UNDERSTAND IT IS TOTALLY DEFEATING THE PURPOSE. YOU CAN COPY ALL YOU WANT AND GET WHAT APPEARS TO BE A GOOD GRADE, BUT WHEN THE EXAM COMES, YOU STILL WILL NOT HAVE THE KNOWLEDGE AND SKILLS TO DEMONSTRATE THAT YOU KNOW WHAT YOU ARE SUPPOSED TO KNOW.

Please write the answers to the homework problems neatly on white or yellow notebook paper. Do not turn in scribbled answers on the original assignment sheet. Neatly written homework can be graded more easily and more fairly. Be sure to staple the pages together; paper clips or turned down corners are not sufficient.

The HONOR CODE covers the homework assignments. You are expected to write and sign the HONOR CODE on each paper. It reads as follows:

_Honor Pledge:_

On my honor as a University of South Carolina at Aiken student, I have neither given nor received any unauthorized aid on this assignment/examination. To the best of my knowledge, I am not in violation of academic honesty.

ALL WORK MUST BE AN INDIVIDUAL EFFORT. Written material such as text books and study guides may be consulted, but communication between students is prohibited. This includes copying someone else’s work, working together, asking one another for hints or help. If you have questions about the homework, see the instructor. The instructor reserves the
right to refuse to grade homework or take other appropriate measures of all parties where suspiciously similar incorrect answers appear that suggest collaboration. Please read the pertinent sections of the USCA Student Handbook regarding academic dishonesty and the possible sanctions.

Answer keys for the homework will be posted electronically by 8:00 p.m. on the day that the graded homework is returned.

PAPER:

In addition to homework, there will be a writing assignment. You will be asked to thoroughly describe some aspect of the topic that is assigned. These papers are to be typed, double spaced with accompanying chemical formulas neatly drawn in ink. You will be graded on the quality of the content, organization, grammar, and punctuation. The paper is to be written in your own words. The use of quotations, paraphrasing or other use of wording from published sources should be kept to a minimum.

ASSIGNMENTS (Other Than Graded Homework):

You are responsible for all the material covered in the lectures and the assigned sections of the textbook and selected handouts. Generally, reading assignments will be made as we go, but you can expect to cover one chapter in 3-6 lectures. We will usually, but not always follow the order in the book (see Tentative Schedule, p. 6). The lecture material and problems will be emphasized on the tests. In order to get the most from the lecture, the reading assignments should be completed prior to attending class.

As part of your regular studying, you should attempt to work all the problems within and at the end of each chapter before working the assigned homework problems. Homework problems will be assigned for each chapter which will resemble the more difficult problems at the end of the chapters. These should be worked after you have studied and learned the material from the notes and text. If you wait until the day before they are due to begin them, you may have difficulty completing the assignment correctly.

Outside of homework assignments, which are to be completed under the Honor Code, studying with someone else occasionally is beneficial, especially just before a test. It is most useful if all partners have studied alone first. Then you can frequently deepen your own understanding when you quiz someone else and they quiz you.

This subject is a non-mathematical problem solving course stressing reasoning and logic. It cannot be mastered without working many, many problems. Some questions on each exam may be taken from or may closely resemble the problems in the text.

ATTENDANCE:

You are expected to attend class and to arrive on time. If you miss a lecture, make arrangements to get the lecture notes and announcements or other pertinent information from someone in the class. If you are absent for several consecutive classes due to a legitimate problem, such as an illness, meet with me as soon as possible to get caught up. If a problem
arises that prevents you from attending class or lab, it is your responsibility to notify me promptly.

You are responsible for informing me of emergencies that require an excused absence either before class or as soon after class as possible. In the event of an excused absence on an exam day, the exam must be made up before the next scheduled class meeting. A telephone call to me is sufficient (in the event that I am not available, leave a message on my answering machine or with the Department secretary when she answers). Please leave a phone number so that I may return your call.

There will be no credit given for missed homework or exams for unexcused absences.

If you choose, you may tape the lectures. If you miss a class, it is helpful to listen to a tape as well as to copy another's class notes. If you have a long commute to and from school listening to the tape while driving can be a useful way to refresh your memory about the class. However, listening to the tape is not a substitute for studying the class notes, reading the text and working problems. Reviewing the tape once immediately after a class to fill in gaps in class notes can be helpful by allowing you more time in class to listen and less time writing.

COURSE OBJECTIVES:

This course provides a continuation to the introduction to the principles of Organic Chemistry including:


EDUCATIONAL OUTCOMES:

At the conclusion of this course, the successful student should be able to describe all of the principles covered in the course, to have a working knowledge of the common reactions and their mechanisms of each of the major functional groups, to determine the structure of an organic compound from spectroscopic and chemical data, and to be able to use this information to solve the problems encountered in the study and practice of Organic Chemistry.

DISABLED STUDENT ACCOMMODATION:

If you have a physical, psychological and/or learning disability which might affect your performance in this class, please contact the Office of Disability Services 126A B&E, (803) 641-3609, as soon as possible. The Disability Services Office will determine appropriate accommodations based on medical documentation.
HELP SESSIONS:

A help session will be offered on request. If there is sufficient class demand, I will be happy to schedule a weekly help session, as well. These will be offered only if a sufficient number attend regularly. Remember, you can ask questions in my office anytime that I am available.

This is a valuable time to seek guidance in solving problems and to have the lecture material clarified or elaborated. Those attending the help session should come prepared with specific questions and should be prepared to be an ACTIVE participant -- this includes being prepared to work problems at the board. If you have not studied for a test before the Help Session, you will have a slim chance of passing the test.

LABORATORY:

The laboratory (ACHM 332L) is a co-requisite course. It has been designed to illustrate the lecture material. You will have direct experience with the laboratory operations that are required to carry out typical organic reactions and isolate the desired product in pure form. Organic Chemistry is an experimental science. Everything that is discussed in class is known because someone conducted an experiment in the laboratory and obtained the data. The laboratory experience provides additional insight into organic that can’t be gained solely from lecture.

EMERGENCIES:

In the event that the University cancels classes because of inclement weather or an emergency on the day that an exam or assignment is scheduled, the exam or assignment will automatically be rescheduled to the next period. You are responsible for all work in lecture and lab. A lab makeup time will be scheduled, if necessary.

Please be certain that cell phones, pagers, and other electronic devices are off or inaudible during class and lab.
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<td>Ch. 13 NMR</td>
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<td>Jan. 24</td>
<td>HW #1 Due</td>
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<td>Jan. 24, 26, 29, 31, Feb. 2, 5</td>
<td>Ch. 7, 8, 9 Alkenes and Alkynes</td>
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<td>Feb. 7</td>
<td>HW #2 Due -- Chs. 7, 8, 9 Work all probs in 7, 8, 9 and all those previously skipped in 10, 11 &amp; 14</td>
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<td>Feb. 12</td>
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<td>Feb. 7, 9</td>
<td>Ch. 15 Conjugated Systems</td>
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<td>Feb. 14, 16, 19, 21, 23, 26</td>
<td>Ch. 16, 17, 19-13, 19-17-21 Aromatic Chemistry All probs. in Chs 15, 16, 17 and to be assigned in 19.</td>
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<td>Mar. 5</td>
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<td>Mar. 19, 21, 23, 26, 28, 30</td>
<td>Ch. 20, 21 Carboxylic Acids &amp; Derivatives</td>
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<td>Apr. 23, 25, 30</td>
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<td>May 4</td>
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