Course Instructor: Brenton DeBoef, bdeboef@chm.uri.edu
312A Pastore Hall, 401-874-9480
Office hours may be arranged by appointment.

Teaching Assistants: Greg Naumeic, gnaumiec@chm.uri.edu

Course Meetings: Laboratory: Wed. and Fri. at 8:00 am in Pastore Annex

Textbook: Chemistry Lab Experiments Chem 226, Thompson Brooks/Cole; Belmont, CA, 2006. This packet is available in the University Bookstore as Chemical Education Resources.

Other Required Materials: RAM account and card to purchase items through the Pastore 210 stockroom
Safety goggles/glasses, lab coat, purple nitrile protective gloves
Bound laboratory notebook with carbonless copy paper
Padlock for equipment drawer (can be purchased from stockroom for $5.00)


Absentee Policy: Attendance is required. If a laboratory exercises are missed for a valid reasons (to be determined by Professor DeBoef), students will have the opportunity to make up only one experiment at the end of the semester.

Grading Scheme: Laboratory (40% of total score)

- Pre-Lab Assignments: 15%
- Lab Reports/Notebooks: 50%
- Lab Citizenship: 10%
- Synthesis Project: 25%

Order of Experiments: The schedule will be posted on the course webpage.

Academic Integrity: Academic dishonesty will not be tolerated. It is an unforgivable offense. Students who have been caught cheating or misrepresenting their work will be subject to the disciplinary actions contained in the URI University Manual including failure of the assignment/exam and potentially culminating with expulsion from the University.
Format for Lab Reports
Reports must be typed and notebooks must be handwritten while performing the laboratory exercise. While handwritten, notebooks must be legible. Please don’t make your teaching assistant struggle to read your notebook.

I. Introduction – 5%
This is a brief statement of the objective of the experiment. What is it that you will learn, demonstrate, or accomplish by performing the experiment? Then include a brief summary of the fundamental chemical concepts behind the experiment and/or the techniques involved. If it is a spectroscopy lab, briefly describe how IR or NMR works. If it is a synthesis lab, briefly describe the mechanism of the reaction.

II. Experimental Procedure – 5%
Make a brief, very simple statement of how the experimental goal will be accomplished. (Note the difference in the focus of Sections 1 and II. Section I describes what you will accomplish. Section II indicates how you will accomplish that objective.) Do NOT list the procedural steps. Reference your lab manual, and then indicate any modifications you made to that procedure.

III. Data/Observations/Notebook – 30%
The data and observations that you recorded in your lab notebook should be neatly organized and presented here. Data might include masses to calculate percent yield, melting point/boiling point temperatures, etc. Copies of any instrumental analyses (IR or NMR spectra) should also be included here. Clearly label each of your calculations, then present the mathematical formula, enter your experimental data (with the appropriate units), and express your result (with units and significant figures). Any graphs you create would be placed in this section. This is also where you’ll interpret your observations (or your spectra), and provide a clear explanation of exactly what it was that you observed. The format of this section will vary according to the nature of the experiment.

IV. Post-Lab Questions – 30%
These are simply your answers to the post-lab questions that are included with each experiment.

VI. Conclusions – 10%
Briefly report the significant outcomes of your experiment. What exactly was demonstrated or accomplished? What chemical principles were illustrated? Did you achieve the objective of the experiment as stated in the introduction? If anything went wrong, you should describe it, and then explain how it affected the outcome/results. Describe how such a problem might be avoided in the future.

Writing Ability – 20%
Proper use of language is essential. Overall clarity will also be considered.