Chemistry 5822 – Organic Synthesis

Room 5005 Ward Beecher Hall

Dr. Peter Norris – (330) 941-1553  pnorris@cc.ysu.edu

Book: Experimental Organic Chemistry by Harwood, Moody and Percy

General:

The object of Chemistry 5822 is to give students experience in some of the more advanced techniques used in modern organic synthesis, including inert atmosphere work, flash column chromatography and high field NMR spectroscopy.

Each student will be set the task of completing seven assignments over the course of the semester (details attached), which will require careful technique, reaction analysis and separation. Once isolated, each pure product will be characterized by $^1$H and $^{13}$C NMR, 2-D COSY, APT and decoupling experiments where necessary, as well as by mass spectrometry and polarimetry.

You will need a hardbound notebook (English composition type is fine), a lab coat, OSHA approved lab goggles and a pair of heavy-duty dishwashing gloves.

Most of the reading material for this course will come from the textbook, the original literature and from the Internet. Details of required reading will be given on the first day of class.

Assignments:

4 Reports 50 points each  200 total
3 Problem Sets 50 points each  150 total
Final Exam 100 points  100 total
Technique 50 points  50 total

500 total

Grading scale: A = >450 ; B = 400-449 ; C = 350-399 ; D = 300-349 ; F = <300.

There will be 4 reports due at intervals in Chemistry 5822, as well as a final exam, 3 problem sets, and a grade for technique. The reports, the problem sets and the technique portions will be worth 50 points each and the final will be worth 100 points, for a total of 500 points for the class.