Organic Chemistry of Macromolecules

Instructor: Prof Anne McNeil
Office: 2817 Chemistry
Phone: 615-5204
Email: ajmcneil@umich.edu
Office Hrs: Wed/Fri 10-11 am

Class: MWF; 9-10 am in 1650.

Text: *Polymers: Chemistry and Physics of Modern Materials* by J.M.G. Cowie, 3rd edition

Supplemental: *Principles of Polymerization* by Odian, 4th edition

Polymer Chemistry by Stevens, 3rd edition

Requirements: Your grade will be based on three exams, five problem sets, and a class project.

Grading:

Exam 1 (Mon. February 7, 2011; 7-9 pm; 1706)	25% of final grade (200 pts)
Exam 2 (Mon. March 14, 2011; 7-9 pm; 1706)	25% of final grade (200 pts)
Exam 3 (Mon. April 18, 2011; 7-9 pm; 1706)	25% of final grade (200 pts)

Grading System: The exams will be graded using the 0-5-10 system. For example, if a question is worth 10 points, you can get a 0, 5, or 10. *We round to the closest number*.

Problem Sets: Problem sets (5) will be graded *based on effort* with an S (20 pts) or U (0 pts). It is your responsibility to check the answer key to check the accuracy of your answers. These problems are representative of ones you will see on the exams. 12.5% of final grade (100 pts).

Class Project: You will work in assigned groups to create or edit a Wikipedia site related to an important topic or person in polymer chemistry. This project will begin mid-January and more details will come. 12.5% of final grade (100 pts).

Refresher: You should go over your undergraduate organic chemistry course material and refresh your memory on the standard functional groups and their reactivity. You should be able to draw an arrow-pushing mechanism for these basic transformations: **S_N1**, **S_N2**, **transesterifications, amide formation, alcohol additions to isocyanates, enolate alkylations and acid/ester condensations, free radical reactions with alkenes, electrophilic additions to alkenes, alkene and alkyne metathesis reactions.**