

Chem 112 syllabus:

Instructor: CM Rosenthal; 5-412; email: carey.Rosenthal@drexel.edu; phone 215 895 2641

Text: "Fundamentals of General, Organic and Biological Chemistry", 6th edition

Hour Exams: to be announced. (will be given during class times)

Final Exam: to be announced.

Grading scheme: Hour exams: 25%; Final: 50%

No Make-up exams. If you miss an hour exam, grade will be determined by weighting single hour exam taken at 50%. If both hour exams missed, grade determined by final exam alone.

Problem assignments..to be discussed in recitation class. Do the problems before coming to class:

Chapter 11: 2,5,10,12,15,21,25,28,29,30,33,35,37,38,44,47,36. Topics :alkanes, cycloalkanes, uses, octane number, combustion, halogenation, cracking, isomerization, alkyl halides, preparation, uses.

Chapter 12: 1,3,4,5,8,9,13,17,18,19,23,27,33,34,35,36,39,53. Topics: alkenes, uses and reactions—hydrogenation, combustion., addition of halogens, water; polymers, Markovnikov's rule, alkynes and reactions; aromatics-names, uses, reactions-nitration, halogenation, sulfonation, combustion.

Chapter 13: 2,3,4,6,8,9,12,15,18,19,23 (name only), 25,35,36,37,38,40,41,53. Topics: alcohols-names, uses, reactions: oxidation, esterification; phenols, ethers, thiol names, uses and reactions.

Chapter 14: 3,4,8,16,25,40,48. Topics: aldehydes and ketones-names, uses, reactions, Tollen's reagent.

Chapter 15: 2,3,4,7,9,14,18,20,21,23,27,23,32,39,41,43,45,47,61,62. Topics: carboxylic acids and their salts-names, uses, reactions-formation of salts and soaps, detergents, esters, aspirin, Dacron and polyesters, amides

Chapter 16: 3,4,5,7,8,11,15,28,29,36. Topics: amines-names, uses, reactions-formation of salts and amides, nylons.

Chapter 17: 1,3,4,7 8,9,10,11,13,19,20. Topics: optical isomerism.

Chapter 18: 5,6,11,14,32,33,38,39,42,43,44,45,47,48. Topics: carbohydrates, sugars, starch, cellulose, glycogen.

Chapter 19: 4,5,8,11,13,17,18,19,22,33,34,36,48,50,51,52,53,55. Topics: Lipids-fats and steroids.

Chapter 20: 1,13,20,27,28,33,34,44,65,71: Topic: proteins

Chapter 21: 1,11,16,42: Topic: Enzymes

Chapter 24: 5,6,7,8,9,10,12,15,27,41,44,56,63,68. Topics: DNA and RNA