

## CHM 2210 Exam 2 Review Sheet

drawing or depicting chiral molecules. (examples 5.3 and 5.4)

chiral centers and planes of symmetry. (pp 143-7, 159-160)

determining if a picture of two molecules shows diastereomers, a pair of enantiomers, or one meso compound. (pp 150-160)

determining if reaction products have optical activity, or are achiral, meso, or racemic.  
(pp 161-3, esp Fig 5.13, and pp 296-8, esp. bottoms of pp 296 and 298)

Depict pro-r and pro-s faces of a prochiral molecule, and predict their reaction products. (pp 167-9)

nomenclature rules, skeletal structures, condensed structures, and degrees of unsaturation for alkenes (pp 21-3, 224-230)

electrophilic addition mechanisms (pp 194-9)

polar addition reactions and mechanisms for alkenes, including the energy diagrams and carbocations (pp 237-250)

free-radical halogenation and polymerization mechanisms (pp 187-8, 291-3)

preparation methods for alkenes (pp 263-4)

halogenation of alkenes (pp 264-6)

hydration reactions and mechanisms for alkenes:  
oxymercuration (pp 269-272) and hydroboration (pp 272-6)

reduction of alkenes (pp 276-9)

alkene hydroxylation into epoxides and diols (pp 281-4)

oxidative cleavage of alkenes (pp 284-6)

cyclopropane synthesis (pp 287-9)

Summary of Reactions (pp 301-3)