

DATES	TOPICS	READING
3/31-4/4	ALKENES: Recap and Reactions	
	The alkene double bond: a focus of reactivity. Polar and concerted addition reactions. Hydrogenation, addition of HX (Markovnikov addition), halogenation. Epoxidation, hydroboration (anti-Markovnikov addition), osmylation and ozonolysis Alkene polymerization	7.1, 7.2, 7.4, 7.5, 7.7, 8.1, 8.2 8.3-8.5, 8.7, 8.8, 8.10, 8.11 8.12-8.15 8.16
4/7	ALKYNES: Structure and bonding Introduction to the alkyne triple bond	9.1-9.5
4/9-4/11	ALKYNES: Synthesis and Reactions	
	Alkylation of acetylide anions (a carbon nucleophile) Addition reactions to alkynes, hydrogenation, halogenation and HX. Hydration of alkynes, tautomerization.	9.6, 9.7 9.9
4/14	Exam # 3 (material from 3/12-4/11)	
4/16-4/18	ALCOHOLS: Structure, synthesis and reactions	
	Structure and bonding. Acidity (brief review)	10.1-10.6
	Synthesis of alcohols (methods to date and new strategies)	10.7
	Organometallic reagents, reactivity and basicity.	10.8
	Reaction of carbonyl compounds with Grignard and organolithium reagents	10.9-10.12
REDOX relationships amongst alcohols, aldehydes and ketones and carboxylic acids.	10.11,11.1-11.3	
Alcohols as nucleophiles (formation of alkoxides) and electrophiles (formation of tosylates). Esterification. (April 21, no class - Patriots day)	11.5-11.9, 11.12, 11.14	
4/23-4/25	AROMATIC COMPOUNDS: Structure and Reactions	
	2, 3, and 4 pi electron systems	15.1-15.4
	Benzene - the prototypic aromatic system. What is "aromaticity"? Huckel's rule. Identifying aromatic systems.	16.1-16.10. 16.13
	Charged and neutral species. Polycyclics and heterocyclic.	
	Reaction chemistry of aromatic compounds - electrophilic aromatic substitution: halogenation, nitration, sulfonylation and Friedel-Crafts alkylation and acylation.	17.1-17.5, 17.10-17.11
4/28-4/30	Directing effects in electrophilic aromatic substitution	17.6-17.9,
	Nucleophilic aromatic substitution	17.12
	Strategies in the synthesis of multisubstituted benzene derivatives	
5/2	CARBONYL COMPOUNDS:	
	Summary of various types of carbonyl compounds - aldehydes and ketones, carboxylic acids and carboxylic acid derivatives (acid chlorides, acid anhydrides, esters and amides).	18.1-18.4
5/5	EXAM #4 (material from 4/14-4/30)	
5/7-5/9	Synthesis of aldehydes and ketones.	18.7, 18.9, 18,11
	Reactions of carbonyl compounds with the carbonyl group as an electrophile with H, C, N and O nucleophiles.	18.12-18.21
5/12	Carbonyl reactivity at the alpha C-H (enols and enolates)	22.1-22.5
5/14	WRAP UP!!!!	