

Chemistry 360, Jasperse, Spring 2010 (43 class days)		Reading Assignment
Date	Topic	
11-Jan	Intro; Conjugation, Molecular Orbitals, Dienes, Allylic Cations, Additions to Dienes	15.1-6
13-Jan	More allylic cations/radicals/conjugation and Applications; Diels-Alder Reaction	15.7-11
15-Jan	Diels-Alder Reaction; Aromaticity (15-3 will be covered only very briefly; skim briefly)	15.11, 16.1-2
18-Jan	No Class. Martin Luther King Day.	no class
20-Jan	Aromaticity; Huckel's Rule and Complex Aromatics	16.1-7
22-Jan	Complex Aromaticity, Application, Nomenclature (Skip "endo rule" section in 15.11A, p. 684; Skip 15.12,13)	16.8-11, 13
25-Jan	Electrophilic Aromatic Substitution: Intro, Mech, Kinetic Effects, Directing Effects	17.1,6-8
27-Jan	Reactions in Detail: Halogenation, Nitration, Sulfonation, Alkylation, Acylation	17.2-5,10,11
29-Jan	Catchup; Addition to Disubstituted Benzenes; Synthetic Applications (Skip 16.11,14,15)	17.9, Practice
1-Feb	Side Chain Reactions; Retrosynthesis; Synthetic Applications; Practice	17.14, Practice
3-Feb	Catchup	-
5-Feb	Integrated practice problems (Skip 17.12,13,15)	-
8-Feb	¹ H NMR Overview: Chemical Shift, Integration, and Splitting; ¹ H NMR Problem Solving	13.5-8
10-Feb	Test #1 Covering Chapters 15-17.	Test 1
12-Feb	¹ H NMR Problem Solving	13.5-8
15-Feb	More Problem Solving; Complex Splitting; Stereochemical Nonequivalence of Protons	13.9-10
17-Feb	¹³ C NMR; Infrared Spectroscopy	13.12-13; 12.11-12
19-Feb	Spectroscopy Catchup, Integrated Problems (Focus on 13.5-8, 12-13; Skim 13.1-4, 9, 10; Skip 11, 14)	catchup
22-Feb	Ketones/Aldehydes. Nomenclature, Properties, Intro.	18.1-7
24-Feb	Test #2 Covering Chapters 12-13. 50 points.	Test 2
26-Feb	Synthesis of Ketones/Aldehydes.	18.7-11
1-Mar	Reactions of Ketones/Aldehydes	18.12, 14-17, 18-19
3-Mar	Reactions of Ketones/Aldehydes	18.20-21
5-Mar	Catchup; Enols and Enolates Intro. Acid/Base Considerations; Proton as Electrophile (Skip 18.13, for now....)	22.1-2, 22.15
8-Mar	Enols and Enolates Intro. Acid/Base Considerations; Proton as Electrophile	22.1-2, 22.15
10-Mar	Halogenation; Alkylation; Double Activation; Ester Hydrolysis; Decarboxylation	22.3, 5, 15-17
12-Mar	The Aldol Reaction (Aldehyde/Ketone as Electrophile)	22.7-11
15-Mar	Spring Break	
17-Mar	Spring Break	
19-Mar	Spring Break (Skip 22.4,6. 18, 19)	
22-Mar	Claisen Reaction (Ester as Electrophile)	22.12-17
24-Mar	Catchup	
26-Mar	The Wittig Reaction and Alkene Synthesis; Catchup	18.13
29-Mar	Catchup, Integrated Practice Problems.	Catchup
31-Mar	Amines. Intro, Nomenclature, Properties; Basicity of Amines; Structural Factors; Salts	19.1-7
2-Apr	No Class, Easter Friday	-
5-Apr	No Class, Easter Monday	-
7-Apr	Test #3 Covering Chapters 18 and 22.	
9-Apr	Reactions of Amines (Skip 19.8-9,14-16,24-25)	19.10-13, 17-18
12-Apr	Diazonium Chemistry; Amine Synthesis by Reductive Amination of Carbonyls	19.17-19
14-Apr	More Synthesis of Amines	19.19
16-Apr	Carboxylic Acids: Nomenclature; Properties; *ACIDITY*; Salts; Soap; SYNTHESIS	20.1-5
19-Apr	Acid Synthesis; Reactions	20.8-11
21-Apr	Reactions of Acids: Nucleophilic Acyl Substitution; Carboxylic Acid Derivatives	20.13-15; 21.1-3
23-Apr	Interconversions Among Acids and Derivatives; Synthesis and Mechanism; Catchup (Skip 20.6,7,12)	21.5-7
26-Apr	Interconversions Among Acids and Derivatives; Synthesis and Mechanism; Catchup	21.5-7
28-Apr	Practice Problems	-
30-Apr	Test #4 Chapters 19-21 (Skip 21.4)	Test 4
3-May	Significant Special Topics; Preview of ACS Final Exam; Course Evaluations	Practice
10-May	Final Exam, 12 noon, Monday	Final Exam