

Chemistry 360, Jasperse, Spring 2024 Wade 9 (43 class days, 39 lectures)			Reading Assignment
Date	Topic		
1	8-Jan	Intro; Structure, Nomenclature, Properties, Weak Acidity of Alcohols	10.1-10.6
2	10-Jan	Synthesis of Alcohols; Organometallic Reactions.	10.7-10.9
3	12-Jan	Synthesis of Alcohols; Organometallic Reactions.	10.7-10.9
		Skip 10.12	
	15-Jan	No Class. Martin Luther King Day.	no class
4	17-Jan	Side Reactions; Reduction of Carbonyl Compounds	10.10-10.11
5	19-Jan	Oxidation of Alcohols	11.1-11.3
		Skip 11.4, 11.11-13	
6	22-Jan	Conversion of Alcohols to Tosylates or Halides; Uses of Tosylates and Halides	11.5-11.9
7	24-Jan	Miscellaneous; Chemical Tests; Multistep Synthesis	11.10, 11.14
8	26-Jan	Retrosynthetic Analysis	
9	29-Jan	Catchup, Multistep Synthesis Problems	Catchup
10	31-Jan	Review for Test 1	---
11	2-Feb	¹ H NMR Overview: Chemical Shift, Integration, and Splitting; ¹ H NMR Problem Solving	13.5-8
12	5-Feb	¹ H NMR Overview: Chemical Shift, Integration, and Splitting; ¹ H NMR Problem Solving	13.5-8
T1	7-Feb	Test #1 Covering Chapters 10-11.	Test 1
13	9-Feb	¹ H NMR Problem Solving	13.5-8
14	12-Feb	More Problem Solving; Complex Splitting; Stereochemical Nonequivalence of Protons	13.9-10
15	14-Feb	¹³ C NMR; Infrared Spectroscopy	13.12-14
16	16-Feb	Spectroscopy Catchup, Integrated Problems (Focus on 13.5-8, 12-13; Skim 13.1-4, 9, 10; Skip 11, 14)	catchup
17	19-Feb	Ketones/Aldehydes. Nomenclature, Properties, Intro.	18.1-7
T1	21-Feb	Test #2 Covering Chapters 12-13. 50 points.	Test 2
18	23-Feb	Synthesis of Ketones/Aldehydes.	18.7-11
19	26-Feb	Reactions of Ketones/Aldehydes	18.12-17
20	28-Feb	Carbonyls, Carbohydrates, and Condensation Polymers	18.19-20
21	1-Mar	Catchup; Enols and Enolates Intro. Acid/Base Considerations; Proton as Electrophile (Skip 18.13, for now....)	22.1-2, 22.15
22	4-Mar	Enols and Enolates Intro. Acid/Base Considerations; Proton as Electrophile	22.1-2, 22.15
23	6-Mar	Halogenation; Alkylation; Double Activation; Ester Hydrolysis; Decarboxylation	22.3, 5, 15-17
24	8-Mar	The Aldol Reaction (Aldehyde/Ketone as Electrophile) (Skip 22.4,6, 18, 19)	22.7-11
	11-Mar	No Class, Spring Break	
	13-Mar	No Class, Spring Break	
	15-Mar	No Class, Spring Break	
25	18-Mar	Claisen Reaction (Ester as Electrophile)	22.12-17
26	20-Mar	Catchup	
27	22-Mar	The Wittig Reaction and Alkene Synthesis; Catchup	18.18
28	25-Mar	Catchup, Integrated Practice Problems.	Catchup
29	27-Mar	Reactions of Amines	19.1-7
	29-Mar	No Class, Easter Friday	
T3	1-Apr	No Class, Easter Monday	
30	3-Apr	Amines. Intro, Nomenclature, Properties; Basicity of Amines; Structural Factors; Salts	19.9-12, 16-17
31	5-Apr	Test #3 Covering Chapters 18 and 22.	
32	8-Apr	Reactions of Amines. Proteins: Condensation Polymers of Amino Acids.	19.16-18
33	10-Apr	More Synthesis of Amines	19.18
34	12-Apr	Carboxylic Acids: Nomenclature; Properties; *ACIDITY*; Salts; Soap; SYNTHESIS (Skip 19.8-9,14-16,24-25)	20.1-5
	15-Apr	Acid Synthesis; Reactions	20.8-11
35	17-Apr	Reactions of Acids: Nucleophilic Acyl Substitution; Carboxylic Acid Derivatives	20.13-15; 21.1-3
36	19-Apr	Interconversions Among Acids and Derivatives; Synthesis and Mechanism; Catchup (Skip 20.6,7,12; Skip 21.4))	21.5-7
37	22-Apr	Interconversions Among Acids and Derivatives; Synthesis and Mechanism; Catchup	21.5-7
38	24-Apr	Practice Problems	Practice
39	26-Apr	Practice Problems, Catchup. Polymers Chemistry. Addition, Condensation, Biopolymers.	26.1-4, 24.8-10, 23.13
T4	29-Apr	Test #4 Chapters 19-21	Test 4
	2-May	Final Exam, 11:30am., Thursday	Final Exam