

Chem 1100 Homework Problems for 10th Edition.doc

Meeting 1 **Chemical Kinetics**

Read: Same as for lectures 1 and 2
Homework: Chap. 14; Probl. 13,15,17,19,24,25,30,31,
35,38,45,51,52,53,59,60,62,65,
66,67,69,71,73,94

Meeting 2 **Chemical Equilibrium**

Read: Same as for lectures 3 and 4
Homework: Chap. 15; Probl. 5,13,15,19,21,27,30,31,
33,35,37,43,44,49,51,52,53,69

Meeting 3 **Acids and Bases**

Read: Chap. 16, Sections 16.1-16.6, Appendix A.2
Homework: Chap. 16; Probl. 13,14,15,16,17,19,21,26,
27,28,29,30,34,37,41,45,51,55,59
Work through Sample Exercise 16.13 (pp. 692-693) and
Do the associated Practice Exercise (p. 691)

Meeting 4 **Acid-Base Chemistry**

Read: Chapter 16, Sections 16.7-16.9,16.11
Chapter 17, Sections 17.1,17.2
Homework: Chapter 16; Probl. 73,75,79,83,85,101,120
Chapter 17; Probl. 11,13,15,17,21,23

Meeting 5 **Acid-Base Chemistry, Aqueous Equilibria**

Read: Chapter 17, Section 17.3-17.5
Homework: Chapter 17, Probl. 31,32,37,39,41,45,47,
51,54

Meeting 6 **Aqueous Equilibria and Precipitation**

Read: Chapter 17, Sections 17.6, 17.7
Homework: Chapter 17, Probl. 56,58,59,61,63,65

Meeting 7 **Entropy and Free Energy**

Read: Chapter 19
Homework: Chapter 19, Probl. 7,8,10,31,37,38,39,47,49,
51,53,59,61,63,65,71,73,76,79,
92,105

Meeting 8 **Oxidation-Reduction, Electrochemistry**

Read: Chapter 4, p.137-144
Chapter 20, Sections 20.1-20.5
Homework: Chapter 4, Probl. 49,50,51
Chapter 20, Problems 9,10,13,17,19,21,22,
23,33,35,38,41,42,45,55

Meeting 9**Electrochemistry**

Read: Chapter 20, Sections 20.6, 20.7, 20.9
Homework: Chapter 20, Probl. 52, 53, 57, 58, 59, 70, 86,
85, 86, 91, 92

Meeting 10**Transition Metals, Coordination Compounds**

Read: Chapter 23, Sections 23.5, 23.7
Chapter 24
Homework: Chapter 23, Probl. 30, 39, 41, 43, 44
Chapter 24, Probl. 11, 13, 23, 27, 29, 31,
33, 34, 38, 41, 43, 45, 47

Meeting 11**Hybrid Orbitals**

Read: Chapter 9, Sections 9.4, 9.5
Homework: Chapter 9, Probl. 40, 43, 44, 46, 47

Meeting 12**Hybrid Orbitals, Periodic Trends**

Read: Chapter 9, Section 9.6
Chapter 22, Section 22.1
Homework: Chapter 9, Probl. 49, 50, 51, 55, 57
Chapter 22, Probl. 11, 12, 13, 15

Meeting 13**Organic Chemistry, Biochemistry**

Read: Chapter 25
Chapter 12, Section 12.2
Homework: Chapter 25, Probl. 13, 14, 17, 19, 20, 21, 31,
39, 40, 41, 55, 57, 65, 75
Chapter 12, Probl. 19, 20, 21, 24, 73

Meeting 14**Nuclear Chemistry**

Read: Chapter 21
Homework: Chapter 21, Probl. 7, 9, 11, 17, 19, 23, 21, 24,
28, 30, 33, 35, 39, 47, 55, 57, 59