Spring 2014: Tentative Chemistry 220 Schedule

Class	Date	Topic	Relevant Chapters	Due	Che 220L Schedule
1	Wed 1.15	Materials Science	25.1		
Part 1: Introduction to Physical Chemistry (the second half of *Introduction to Physical Chemistry* is in the 2-credit course: CHE260)					
2	Fri 1.17	Calorimetry	10.4		
--	Mon. 1.20	**No class - MLK Holiday**			*No labs - MLK holiday*
3	Wed 1.22	Calorimetry contd, enthalpies of formation	10.4, 10.6		
4	Fri 1.24	Spontaneous processes	18.1	A1, Q1 (Lec 1-3)	
5	Mon 1.27	Entropy and spontaneity	18.3-18.5		Lab 1 - Materials
6	Wed 1.29	Free energy and living systems	18.6-18.7		
7	Fri 1.31	Sig fig rules for log and ln problems, gases	11.1	A2, Q2 (Lec 4-6)	
8	Mon. 2.3	Kinetic molecular theory of gases and the ideal gas equation	11.1-11.2, 11.4-11.5		Lab 2 –Activity series
9	Wed 2.5	Real gases, gaseous mixtures and gaseous reactions	11.5-11.8		
10	Fri 2.7	Properties of liquids	12.2	A3, Q3 (lec 7-9)	
11	Mon. 2.10	Solutions	12.2, 13.1-13.2		*Lab Report Discussions in lab*
12	Wed 2.12	Concentration, solubility and colligative properties	13.3-13.5		
--	Fri 2.14	**p-chem "midterm" exam (classes 1-10)**			
13	Mon 2.17	Calculations using colligative properties	13.5-13.6		Lab 3 – Thermodynamcis
14	Wed 2.19	Reaction rate vs concentration	14.4		
15	Fri 2.21	Reaction rates vs concentration contd	14.4	A4, Q4 (Lec 11-14)	
16	Mon. 2.24	Reaction rate vs time, radioactive decay	14.5, 20.3		Lab 4 – Gas Laws
17	Wed 2.26	Reaction rate vs temperature, reaction mechanisms	14.6-14.7		
18	Fri 2.28	Catalysis	14.8	A5, Q5 (Lec 15-17)	
19	Mon 3.3	Equilibrium expressions and Le Chatelier	15.3-15.5		Lab 5 – Kinetics
Part 2: Introduction to Inorganic Chemistry (the second half of *Introduction to Inorganic Chemistry* is in the 2-credit course: CHE270)					
20	Wed 3.5	Reactivity of the main group, coordination compounds	8.5, 22.1		Lab 5 – Kinetics
--	Fri 3.7	**p-chem "final" exam (classes 1-19)**			
--	3.8-3.16	**No class - Spring Break**			
21	Mon 3.17	Coordination compounds contd and notes on lab 7	22.1-22.2		Lab 6 – Le Chatelier
22	Wed 3.19	Bronsted acids and bases	22.2, 16.1-16.3		
23	Fri 3.21	The pH scale	16.4	A6, Q6 (Lec 20-22)	
24	Mon. 3.24	Strong acids and bases	16.5-16.6		Lab 7 – Ni Complexes
25	Wed 3.26	Weak acids, acid-base properties of salt solutions	16.6, 16.10		
26	Fri 3.28	Salt solutions contd	16.10	A7, Q7 (Lec 23-25)	
27	Mon. 3/31	Acid-base properties of oxides, Lewis acids and bases	16.11-16.12		Lab 8 – Nine solutions
28	Wed 4.2	Redox reactions	9.4		
29	Fri 4.4	Redox reactions contd	9.4	A8, Q8(Lec 26-28)	
--	Mon. 4.7	**No class – Dr Winget out of town**			Complete Lab 7
--	Wed 4.9	**No class – Dr Winget out of town**			
--	Fri 4.11	**inorganic "midterm" exam (classes 20-29)**			
30	Mon 4.14	Balancing redox reactions, galvanic cells	19.1-19.2		Lab 9 - Electrochemistry
31	Wed 4.16	Standard reduction potentials	19.3		
--	Fri 4.18	**No class - Easter Break**			
32	Mon 4.21	Nuclear reactions and nuclear stability	20.1-20.4		*No Labs - SPARC*
33	Wed 4.23	Nuclear transmutation, fission and fusion	20.4-20.6		
34	Fri 4.25	Use of isotopes	20.7	A9, Q9(Lec30-34)	
35	Mon. 4.28	Uses of isotopes contd, biological effects of radiation	20.7-20.8		

During finals you will be given an inorganic "final" exam, a 50 min exam covering classes 20-35