

Chemistry 153 – Course Outline

WEEK	LECTURE	READING - LECTURE	PROBLEM SET	DISCUSSION	LABORATORY	EXAMS
	DATE # TOPIC		NUMBER DUE ON	EVENINGS 9-10:00 PM	DATE EXPERIMENT DUE TOPDAY	
I. States of Matter						
	Fri, Sept. 9 1 Introduction, ideal gas	Sec. 4.1 - 4.3		TCL 202		
1	Mon, Sept. 12 2 kin. Theory, real gas Wed, Sept. 14 3 forces, condensed phases Fri, Sept. 16 4 Redox Titrations	Sec. 4.4 - 4.7 Sec. 5.1 - 5.3 Sec. 6.1 - 6.4	PSO 9/12 PS1 9/16	Wed, Sept. 14	Mon, Sept. 12 Expt. 0 Tue, Sept. 13 safety/check in meet TPL 114	
II. Equilibrium						
2	Mon, Sept. 19 5 chemical equilibrium Wed, Sept. 21 6 Law of mass action Fri, Sept. 23 7 change direction	Sec. 9.1 - 9.3 Sec. 9.4 - 9.6 Sec. 9.7 - 9.8	PS2 9/23	Wed, Sept. 21	Mon, Sept. 19 Expt. 1 Tue, Sept. 20 acid/base titration	
3	Mon, Sept. 26 8 acid and bases Wed, Sept. 28 9 buffers Fri, Sept. 30 10 polyprotic acids	Sec. 10.1 - 10.3 Sec. 10.4 - 10.6 Sec. 10.7 - 10.8	PS3 9/30	Wed, Sep 28	Mon, Sept. 26 Expt. 2 Tue, Sept. 27 qualitative analysis I #1 worksheet	SUN-OCT-2 REVIEW TCL206 8-9:00 PM
4	Mon, Oct. 3 EXAM - 1 = Lec 1-10 Wed, Oct. 5 11 solubility Fri, Oct. 7 mountain day?	Sec. 11.1 - 11.2 or 10/14, 10/21?		Wed, Oct 5	Mon, Oct. 3 Expt. 3 Tue, Oct. 4 qualitative #2/3 result (after lab)	Mon, Oct. 3 40 min Exam Lec 1-10
5	Mon, Oct. 10 NO CLASS Wed, Oct. 12 12 solubility product Fri, Oct. 14 13 complex ions	READING PERIOD Sec. 11.3 - 11.4 Sec. 11.5 - 11.6	PS4 10-14,15	Wed, Oct 12	Mon, Oct. 10 NO LAB Tue, Oct. 11 NO LAB none due	
III. Atomic Structure						
6	Mon, Oct. 17 14 background Wed, Oct. 19 15 Bohr's model Fri, Oct. 21 16 particle in a box	Sec. 15.1 - 15.3 Sec. 15.4 - 15.5 Sec. 15.6 - 15.7	PS5 10-21,22	NO Review	Mon, Oct. 17 Expt. 4 Tue, Oct. 18 organic acid identification #2/3REPORT	
7	Mon, Oct. 24 17 hydrogen atom	Sec. 15.8 - 15.9			Mon, Oct. 24 Expt. 5 #4 worksheet	
IV. Chemical Bonding						
	Wed, Oct. 26 18 periodic table Fri, Oct. 28 19 VSEPR	Sec. 3.1 - 3.5 Ssec. 3.6 - 3.9	PS6 10/28	Wed, Oct 26	Tue, Oct. 25 particles and waves	
8	Mon, Oct. 31 20 chemical bond Wed, Nov. 2 21 LCOA Fri, Nov. 4 22 Valence Bond model	Sec. 16.1 Sec. 16.2 Sec. 16.3	PS7 11/4	Wed, Nov. 2	Mon, Oct. 31 Expt. 6 Tue, Nov. 1 cobalt complex #5 worksheet	SUN-NOV-6 REVIEW TCL206 8-9:00 PM
9	Mon, Nov. 7 EXAM - 2 = Lec 11-22 Wed, Nov. 9 23 Organic bonding Fri, Nov. 11 24 homonuclear diatomic	Sec. 16.4 Sec. 16.5	PS8 11/11	Wed, Nov. 9	Mon, Nov. 7 Expt. 7 Tue, Nov. 8 gravimetry and conductometry #6 worksheet	Mon, Nov. 7 40 min Exam Lec 11-22
10	Mon, Nov. 14 25 vibrations and rotations Wed, Nov. 16 26 NMR Fri, Nov. 18 27 photoelectron spec	Sec. 17.1 - 17.2 Sec. 17.3 - 17.4 Sec. 17.5 - 17.6	PS9 11/18	Wed, Nov. 16	Mon, Nov. 14 Expt. 8 Tue, Nov. 15 chelatometric titration #7 worksheet	
11	Mon, Nov. 21 28 transition metals Wed, Nov. 23 NO CLASS Fri, Nov. 25 NO CLASS	Sec. 18.1 - 18.2 Thanksgiving break Thanksgiving break		NO review	Mon, Nov. 21 Expt. 9 Tue, Nov. 22 spectrophotometry #8 worksheet	
12	Mon, Nov. 28 29 coordination complexes Wed, Nov. 30 30 crystal field theory Fri, Dec. 2 31 chemical series	Sec. 18.3 Sec. 18.4 Sec. 18.5 - 18.6	PS10 12/2	Wed, Nov. 30	Mon, Nov. 28 Lab 10 Tue, Nov. 29 check out #9 worksheet	SUN-DEC-4 REVIEW TCL206 8-9:00 PM
V. More about Phases						
13	Mon, Dec. 5 EXAM - 3 = Lec 23-31 Wed, Dec. 7 32 phase diagrams Fri, Dec. 9 33 colligative properties	Sec. 5.4 - 5.6 Sec. 6.5 - 6.7	PS11 12/9	Wed, Dec 7	Mon, Dec. 5 Lab 11 Tue, Dec. 6 molecular modeling #6-9 REPORT	Mon, Dec 5 40 min Exam Lec 23-31