

CHEMISTRY 132 SPRING 2007

<u>Date</u>	<u>Topics to be Covered</u>	<u>Reading</u>
17-Jan	1 Review of 131/preview of 132	
19-Jan	2 Energy, enthalpy, work, heat	9.1 - 9.2
22-Jan	3 Equipartition, Specific Heat, calorimetry	9.3 - 9.4
24-Jan	4 Hess' Law, heat of formation, bond energies	9.5 - 9.7
26-Jan	5 Review and examples Chap 9	
29-Jan	6 spontaneity, entropy, Second Law	10.1 - 10.6
31-Jan	7 Third Law, statistical definition of entropy	10.7-10.8
2-Feb	8 Gibbs Free energy and reactions	10.9
5-Feb	9 Equilibrium constants	10.10 - 10.11
7-Feb	10 Boltzmann distribution	10.13, 5.6
9-Feb	11 Review and examples Chap 10	
12-Feb	Practice exam in class	
14-Feb	12 Radiation and global warming	
15-Feb	EXAM 1 (common exam time)	
16-Feb	13 Rates and rate laws	15.1 -15.5
19-Feb	14 Reaction mechanisms	15.6
21-Feb	15 Reaction models, Arrhenius Law	15.8
23-Feb	16 Catalysis and the ozone hole	15.9
26-Feb	17 Michaelis Menten model, steady state	15.7
28-Feb	18 Review and examples Chap 15	
2-Mar	19 Electrochemistry and half reactions	11.1 - 11.3
5-Mar	20 Nernst equation, equilibrium, batteries	11.4 - 11.5
7-Mar	21 Electrolysis, commercial examples	11.6 - 11.8
9-Mar	22 Nonequilibrium thermodynamics	
	SPRING BREAK	
19-Mar	23 Review and examples Chap 11	
21-Mar	Practice exam in class	
22-Mar	EXAM 2 (common exam time)	
23-Mar	24 History, quantum mechanics, EM radiation	12.1 -12.2
26-Mar	25 Schrodinger eqn, uncertainty, H-atom	12.3 -12.5
28-Mar	26 More H-atom, quantum nos., orbitals	12.7 -12.9
30-Mar	27 Pauli principle, larger atoms, Hund Rule	12.10 - 12.11
2-Apr	28 Periodic table, IP, EA, computations	12.12 - 12.14
4-Apr	29 Bonding, electronegativity, dipoles	13.1 -13.3
6-Apr	30 Ionic and covalent bonding	13.5 - 13.8
9-Apr	31 Octet rule, geometries, resonance, VSEPR	13.9 - 13.12
11-Apr	32 Hybridization, review, examples Ch 12-13	13.13, 14.1
13-Apr	Practice exam in class	
16-Apr	33 Cultural implications	
17-Apr	EXAM 3 (common exam time)	
18-Apr	34 Molecular orbitals and filling rules	14.2- 14.6
20-Apr	35 Intermolecular forces, liquids, viscosity	16.1 - 16.2
23-Apr	36 Vapor pressure and phase transitions	16.10-16.11
25-Apr	37 Solutions and solubility	17.1 - 17.4
27-Apr	38 Review and examples Chaps 14,16,17	
30-Apr	39 Big picture review of 132	
2-May	40 What we did not learn	

Note: Review and problem solving session time TBA