

CHEMISTRY BC3254y: LECTURE SCHEDULE Spring 2008 (quite <i>tentative</i> : subject to change) Roman numerals correspond to major topics and Powerpoint slide sets		
MONDAY	WEDNESDAY	FRIDAY
<i>Martin Luther King holiday</i>	1/23: I. Thermodynamics Review: Chemical potential Gibbs-Duhem equation 1	1/25: Real gases: fugacity 2
1/28 Determining fugacity coefficients 3	1/30: Phases and solutions μ : ideal solutions. Henry's Law PROBLEM SET 1 DUE 4	2/1: Activities and activity coefficients 5
2/4: Colligative properties 6	2/6: Ionic solutions Debye-Huckel theory PROBLEM SET 2 DUE 7	2/8: Electrochemical Cells 8
2/11: II. Statistical Thermo. microstates 9	2/13: Lagrange multipliers The Boltzmann distribution PROBLEM SET 3 DUE 10	2/15: Microcanonical partition function q 11
2/18: Ensembles and the Canonical partition fcn Q Energy and Q 12	2/20: Entropy and Q PROBLEM SET 4 DUE 13	2/22: Chemical reactions 14
2/25: Nuclear spin statistics 15	2/27: Spin statistics (con't) PROBLEM SET 5 DUE 16	2/29: literature reports 17
3/3: TST and RRKM 18	3/5: review; catch-up PROBLEM SET 6 DUE 19	3/7: III. Kinetic Theory and the ideal gas law 20
3/10: Midterm EXAM (through lecture #16 and problem set 6)	3/12: Maxwell-Boltzmann 21	3/14: Collision theory and molecular speeds 22
3/24: Transport properties Diffusion and Fick's Laws 23	3/26: Viscosity PROBLEM SET 7 DUE 24	3/28: Measuring Electrical conductivity 25
3/31: Probability: the binomial distribution 26	4/2: Random walks, diffusion and viscosity 27	4/4: Macromolecular transport Friction and Stokes' Law 28
4/7: Sedimentation 29	4/9: review, catch-up PROBLEM SET 8 DUE 30	4/11: literature reports 31
4/14: IV. Radiochemistry: binding energy 32	4/16: Stability patterns of nuclides TAKE-HOME EXAM DUE 33	4/18: Modes of decay: radiation interaction with matter 34
4/21: Kinetics of simple and compound decay 35	4/23: Detection. Natural radioisotopes: nuclear reactions PROBLEM SET 9 DUE 36	4/25: Applications: tracers, dating 37
4/28: Nuclear applications 38	4/30: catch-up, review PROBLEM SET 10 DUE 39	5/2: literature reports 40
5/5: Review, summary 41	Monday May 12*: 9 to 12 noon FINAL EXAM	* CU master exam schedule not yet available: final exam date guessed from previous years