CHEM 209 L02

OCTOBER 2016 To know rooms and exact dates for Tutorials/Expt you will need to refer to your own schedule in PeopleSoft.

SUN	MON	TUES	WED	THUR	FRI	SAT
						1
2	3 **Tut 2B** Kinetics **Expt 1** Even-number sections	4 *HOW FAR - reading* *Learning objectives:* Qualitatively *describe* chemical equilibrium. *Generate* and *manipulate* expressions for K and Q for reactions using concentrations or partial pressures, based on a given reaction or set of related reactions.	5	6 *HOW FAR - reading* *Learning objectives:* *Determine* the direction in which a reaction will proceed using values of K and Q. *Determine* either K, initial concentration, or equilibrium concentration, given the other two values.	7	8
9	Thanksgiving10 **Tut** Review **Expt 2** odd-number sections	11 *HOW FAR - reading* *Learning objectives:* *Describe* (qualitatively and quantitatively) the effect of changes in concentration, partial pressures, and volume on equilibrium. *Describe* (qualitatively and quantitatively) the effect of changes in temperature on equilibrium. *Identify* and *describe* solutions of acids and bases using K_a, pH, and pOH. (review material)	12	13 *HOW FAR - reading* *Learning objectives:* *Describe* (quantitatively and qualitatively) the relationship between the K_a of an acid, the K_b of its conjugate base, and K_w for the auto-ionization of water. *Relate* K_a and pH to the equilibrium concentrations of all species present in a monoprotic acid or base solution. *Compare* the relative strengths of acids or bases using pH, pK_a, pK_b, and % dissociation *Predict* the relative pH of a salt solution.	14	15
16	17 **Tut** None **Expt 2** Even-number sections	18 *HOW FAR - reading* *Learning objectives:* *Identify* buffers and d*escribe* how to prepare buffers using a weak acid or base and its conjugate. *Calculate* the pH of a buffer using the Henderson-Hasselbalch equation.	19 ***Midterm*** ***7-9pm***	20 *HOW FAR - reading* *Learning objectives:* *Calculate* the pH of a buffer after the addition of strong acid or base. *Describe* buffers using buffer range and buffer capacity.	21	22
23	24 **Tut 3A** Acids and Bases **Expt 3** odd-number sections	25 *HOW FAR - reading* *Learning objectives:* *Generate* expressions for K_{sp} and Q_{sp}, and use them to describe the saturation of a salt solution. *Calculate* solubility from K_{sp}, and vice versa. *Describe* how solubility is affected by a common ion, a change in pH, or formation of a complex.	26	27 *HOW FAR - reading* *Learning objectives:* *Describe* how solubility is affected by a common ion, a change in pH, or formation of a complex.	28	29
30	31 **Tut 3B** Acids and Bases **Expt 3** even-number sections					