

## Weekly Lecture Schedule

CHEM 14A  
FALL 2005

Instructor: Dr. Laurence Lavelle

WEEK 10

### Aqueous Equilibria

Read: 11.1 - 11.7

Do Problems: 1, 3, 5, 7, 9, 13, 15, 17, 19, 21, 23, 25, 29, 31, 33, 35, 37, 77, 89, 109

After going through the readings & problems and attending the lectures & discussion groups, you should be able to:

- Explain how buffer solutions resist changes in pH, and calculate the pH of a buffer solution.
- Select an appropriate buffer for a given pH.
- Explain what is meant by the buffer capacity of a solution, and calculate the pH change when an acid or base is added to a buffer solution.
- Determine the relative concentrations of conjugate acid and base needed to prepare a buffer solution with a given pH.
- Interpret the features of the pH curve for the titration of a strong or weak acid with a strong base, or a strong or weak base with a strong acid, and calculate the pH at any point in the titration.
- Select an appropriate indicator for a given titration.
- Explain how blood is buffered.