

## Fluid-Electrolyte & Acid-Base Balance

### Required:

1. Compare and contrast the solute concentrations of ICF (cell cytoplasm) vs. ECF (plasma and interstitial fluid) fluid compartments.\*
2. Summarize the movement of fluid between/among compartments as determined by the effect of relative solute/water concentrations.\*
3. Explain the concept of water balance in the body by describing the important aspects of H<sub>2</sub>O intake and loss.
4. Explain the critical role of ADH in maintaining water balance.
5. Define and explain the effects of the following on sodium balance in the body:
  1. aldosterone
  2. ANF/ANP\*
  3. female sex hormones\*
  4. BP receptors (baroreceptors in CV system)\*
6. Summarize the factors which affect potassium balance in the body.
7. Discuss the role and regulation of body calcium\*.
8. Define acidosis and alkalosis in the body.
9. Compare and contrast metabolic acidosis / alkalosis vs. respiratory acidosis / alkalosis causes.\*
10. List four types of buffering systems in the body; describe their location and role in maintaining acid/base balance.
11. Summarize the renal mechanisms which affect acid/base balance.

\*Can be covered as time allows – these objectives are either previously covered material or are optional.