There is a considerable amount of information on coenzymes given in the text and in the class notes. As an aid to help you decipher what information is most important to concentrate on for this course, the following study guidelines are suggested.

1. Be sure to be able to recognize the structure of all the coenzymes you are responsible for:
   - S-adenosylmethionine
   - NAD⁺ (H), NADP⁺ (H)
   - FAD, FMN, FADH₂, FMNH₂
   - Coenzyme A
   - Thiamine pyrophosphate
   - Pyridoxal phosphate
   - Biotin
   - Tetrahydrofolate
   - Adenosyl & methylcobalamin
   - Lipoamide
   - Ubiquinone
   - ATP

2. Know what group(s) are transferred by each of the coenzymes. Be able to recognize the active part of the coenzyme.

3. Know the general type(s) of reactions in which each of the coenzymes participate.

4. Know whether each coenzyme is vitamin-derived or metabolite-derived.

5. Know whether each coenzyme is a cosubstrate or a prosthetic group.

6. For the vitamin-derived coenzymes, be able to identify the vitamin portion within the coenzyme.

7. Be able to recognize the soluble vitamins
   - Ascorbate (vitamin C)
   - Niacin
   - Riboflavin
   - Pantothenate
   - Thiamine
   - Pyridoxine
   - Biotin
   - Folate
   - Cobalamin

8. Be familiar with the human diseases that result from deficiencies in the soluble vitamins.

9. Know the names of the lipid soluble vitamins.