Bio 210A
Study Guide

Flow of genetic information:

Genetic Code & Translation (Protein Synthesis)
- Review the language of nucleic acid; the difference between nucleotide and codon.
- Recognize codons as the words of mRNA to be translated into amino acids and recognize the initiation codon and the three stop codons, as well as the importance of the reading frame.
  Use the table of the genetic code to convert the specific DNA coding sequence into the proper polypeptide sequence and vice versa.
- Review the steps of translation: What cellular molecules and structures are involved? What is the specific mechanism of each step? What is the role of t-RNA in the process and how does it get loaded with the right amino acid?
- Identify the term polyribosome. How and when does a polypeptide acquire it secondary and tertiary structure?
- What are the common post-translational modifications of polypeptides?
- Learn the different RNA molecules and the important roles each plays in the flow of genetic information within a cell.
- What is the difference between mutation and mutagens? What are the types of mutations based on their impact on the primary sequence of the polypeptide? How do mutations arise? Review the chemical and physical mutagens.