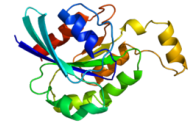




Chem 331 Biochemistry

Introduction, Cells and Organelles

Learning Objectives, Study Guides
and Practice Questions



Chapter 1

Learning Objectives

- Understand how Dr. Provost will use a combination of teaching and active learning to help you learn biochemistry
- Appreciate your expectations for the outcomes of this course
- Know the grading of the course and use of both blackboard and class website for learning materials
- Recognize and write the basic functional groups involved in biochemistry
- List and describe the basic concept of macromolecules/biomolecules (protein, nucleotides, lipids and carbohydrates)
- Interpret, relate and utilize the weak forces involved in biochemistry
- Recognize hydrogen bonding donors and acceptors
- Relate the specific forces which drive hydrophobic interaction and apply its uses in biochemistry
- Describe the basic structure of plant, animal and bacterial cells and explain the function of key cellular organelles

Study Notes from Dr P: *This is mostly review but is applied to biochemistry. The concept "mechanism" is something I will focus on throughout the semester. Don't be descriptive in your understanding. Think about what causes the phenomenon your reading and learning about. For instance, just knowing that lipids aggregate into membranes is descriptive; the mechanism for this is the force that drives the aggregation. Use this approach for the rest of the semester and things will go well.*

Pages – 2-8

Chapter Questions (not assigned for homework but to help you practice, don't turn in. BUT some may or will show up on the exam).

- Look at the chapter summary and be able to do the same in your own words
- No real strong questions in the chapter questions for this section. BUT don't forget to review your functional groups. The thermo questions will be used later.
- You will be expected to understand the organelles and different cell types as described in the handout.