

## Chapter 12 Study Guide

Prior to lecture:

1. Read Ch. 12 in the textbook
2. On a sheet of paper, work through example 12.2 on page 403.
3. On a sheet of paper, complete the “Take-Home Experiments” on pages 405 and 420. Answer all questions.
4. On page 421 is Table 12.2. Discuss why the four molecules in water have different diffusion constants.
5. Describe the processes of osmosis and dialysis. Discuss how they relate to the process of diffusion.
6. Answer conceptual questions 1, 4, 9, 13, 16 and 23 on pages 425 and 426 of the text.
7. Define the following terms:
  - a. Bernoulli's Principle
  - b. Laminar flow
  - c. Turbulent flow
  - d. Diffusion
  - e. Poiseuille's Law
  - f. Reynolds Number
  - g. Terminal speed
  - h. Viscosity
  - i. Flow rate

After lecture:

1. Review notes from lecture
2. Redo all example problems from lecture
3. Reread text
4. Work through example problems 12.3, 12.4, 12.5, 12.8, 12.9, and 12.11 in the text.
5. Redo all recitation worksheet problems
6. Answer conceptual questions 2, 3, 5, 11, 15, 18, 20, 25, 26, and 30 on pages 425-427 of the text.
7. Complete homework for chapter 12
8. For extra practice, try the following problems from chapter 12 of the textbook: 3, 6, 14, 22, 24, 26, 33, 37, 44, 54, 57, 62, 64, 66