

Chapter 6 Study Guide

Prior to lecture:

1. Read Ch. 6 in the textbook
2. Define the following terms:
 - a. Fictitious force
 - b. Centripetal force
 - c. Centrifugal force
 - d. Arc length
 - e. Angular velocity
 - f. Angular acceleration
 - g. Coriolis force
 - h. Radius of curvature
 - i. Gravitational constant
 - j. Uniform circular motion
3. Convert each of the following from degrees to radians and revolutions:
 - a. 35°
 - b. 124°
 - c. 270°
4. On a sheet of paper, complete the "Take-Home Experiment" on page 207. Answer all questions.
5. Work through example 6.2 in the text.
6. Write down Kepler's three laws as described in the textbook. Re-write the laws in your own words.
7. Answer conceptual questions 1, 2, 6, and 7 on page 218 of the text.

After lecture:

1. Review notes from lecture
2. Redo all example problems from lecture
3. Reread text
4. Work through examples 6.1, 6.3, 6.5, 6.6, and 6.7 in the text.
5. Answer conceptual questions 4, 8, 10, 13, 16, 18, and 21 on page 218-220 of the text.
6. Redo all recitation worksheet problems
7. Complete homework for chapter 6
8. For extra practice, try the following problems from chapter 6 of the textbook: 5, 7, 11, 13, 18, 20, 27, 28, 29, 35, 39, 41, 47