

Lecture 23

Pre-Lecture Preparation (due within the first 5 minutes of class):

- Read page 302 – 310
- Quick Quizzes: 10.5
- Ch 10 Conceptual Questions: 2, 6, and 7

Goals for the Lecture:

- 1) Understand how to use Newton's 2nd Law for rotation ($\sum \tau = I\alpha$) to solve problems
- 2) Know how to use the chart of rotational inertias to find rotational inertia of common shapes about typical axes of rotation
- 3) Know how to use the Parallel Axis Theorem, in conjunction with the chart of rotational inertias, to find the rotational inertia about any parallel axis of rotation
- 4) Know how to integrate to find the rotational inertia of one dimensional objects, including objects with non-uniform mass density

Post-Lecture Study Guide:

Review the worksheets or other lecture material within 24 hours (preferably the same day as the lecture) to reinforce the ideas.

Do problems:

Ch 10 Conceptual Questions: 11 and 14

Ch 10: Objective Questions: 6 and 7

Ch 10: Problems: 37, 39, and 40

Continue with the additional recommended study problems from chapter 10