

Lecture 6

Pre-Lecture Preparation:

- Read pages 131 – 142
- Watch the following video solutions: MECH-06 and MECH_07
<https://www.youtube.com/watch?v=srCRUeaxb5c&feature=youtu.be>
<https://www.youtube.com/watch?v=NnXeScf9qtQ&feature=youtu.be>
- Draw free body diagrams for the two boxes in MECH-07, but this time with friction between the boxes and the surface. Do the best you can and draw the diagrams as outlined in the videos.
- Do the Conceptual Questions (p. 166) 3 and 9
- Do Problems and Exercises (p. 168) 3 and 6

Goals for the Lecture:

- 1) Understand Newton's First Law, inertia, and the role it plays in motion
- 2) Understand Newton's Second Law, forces, and the role they play in acceleration
- 3) Be able to draw free body diagrams for objects on flat surfaces

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 4: Conceptual Questions: 4 and 6

Ch 4: Problems and Exercises: 7 and 8

Continue with the additional recommended study problems from chapter 4