

## Lecture 8

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

- Read pages 117 – 135  
Pay particular attention to p. 117, 120-121, 130-131, and the examples
- Watch the following video solutions: MECH-08 and MECH\_09  
<https://www.youtube.com/watch?v=kW9gcnTYHGk&feature=youtu.be>  
<https://www.youtube.com/watch?v=3Ho6ATdZFPJ&feature=youtu.be>
- Draw a free body diagram for a single box sitting at rest on an incline.
- Quick Quizzes: 5.4, 5.5, 5.6, & 5.7

### Goals for the Lecture:

- 1) Use Newton's Second Law to solve motion problems involving forces and acceleration
- 2) Be able to draw free body diagrams for objects on incline surfaces
- 3) Be able to calculate static and kinetic friction forces

### 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 5: Objective Questions: 6, 10, 11, & 13

Ch 5: Problems: 43 and 47

Continue with the additional recommended study problems from chapter 5