

# Physics 121 – October 3, 2017

## Announcements:

**Midterm on Thursday, Oct 12**

**Practice Exam ([pdf copy](#)) on class website**

**Office hours change: Thur 2-3, Fri 1-3 pm**

## Assignments:

### This week:

- Finish reading Chapter 7 of textbook; read Chap 8 up to section 8.3 (we'll cover 8.4-8.5 *after* the midterm exam)
- Complete ETA Problem Set #7 and Chap 7 written problems #34, 50, 54, 72, and Chap 8- #23, 36, 42
- Quiz in recitation this week plus practice problems in recitation: Chap 7- #29, 51, 60, 76, and Chap 8- #40, 41

## Topics to know for this week's quiz:

- Draw a Free Body Diagram (FBD), identifying all forces
- Forces: tension, gravitational, spring, friction, normal
- Components of forces, dealing with off-axis forces (as in ramps, things hanging from ropes, etc.)
- Newton's 2<sup>nd</sup> law

$$\vec{F} = m\vec{a}, \quad \Sigma F_x = ma_x$$
$$\Sigma F_y = ma_y$$

## **Topics for today:**

- Work, definition and examples
- Kinetic energy
- Using work-kinetic energy theorem to solve problems