# Physics 151 Reading Assignment for December 2 Sections 14.5, 15.1 through 15.3

Please notice that this file is two pages long.

## 14.5 - Pendulum Motion

- I'll probably skip this entirely in class since I've run out of time, but you should read it. It may be on the final.
- $T = 2\pi\sqrt{\frac{L}{g}} \Rightarrow$ the length of the pendulum and gravity completely determine the period. Again, amplitude has no effect.
- Read about the physical pendulum carefully as I may run out of time and only cover the simple pendulum in class.

## 15.1 - The Wave Model

- We'll only do mechanical waves in lecture. We'll come back to electromagnetic and matter waves in Physics II.
- There are actually three classes of waves: transverse, longitudinal, and rolling.

## 15.2 - Traveling Waves

- <u>Wave speed</u> $v$ - the rate at which the energy propagates.
- We'll mostly concentrate on understanding what wave speed is, so the equations in this section are less important to me.

## 15.3 - Graphical and Mathematical Description of Waves

- We'll be sticking with the graphical description of sinusoidal waves.
- <u>Wavelength</u>, $\lambda$ - distance between points that are at the same point in their cycle. Unit = meter.
- Wave speed relates wavelength and frequency, $v = \lambda f$.