Physics 151 Reading Assignment for July 9
Sections 8.3, 10.4, and 10.6

Please notice that this file is two pages long.

8.3 Springs and Hooke's Law

- Hooke's Law - the amount of force needed to stretch a spring increases linearly with *stretching* distance.
- Spring can push or pull depending on whether they are compressed or stretched.
- The spring constant has units N/m.

10.4 Potential Energy

- I know you've already read this, but you should look at it again paying special attention the equations for the elastic potential energy.
- I prefer to use the equation $U_{el} = 1/2ks^2$ to stress the fact that we need to use how far the spring has been stretched (or compressed).
- Be careful with the book's assertion on page 304 that we can set zero potential energy anywhere we like. That's kind of true, but we still need to measure the distance, s, from the unstretched position of the spring.

10.6 - Using the Law of Conservation of Energy

- This time read the entire section paying attention to the examples
- Again, I'll mix introducing potential energy and using it to solve problems.
- Examples 10.10, 10.11, and 10.12 will be similar to those in class.