

READING ASSIGNMENT FOR OCTOBER 25

SECTIONS 8.3, 10.4, AND 10.6

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 many times now, but this time pay 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 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

- It's still not time to read the first paragraph here; skip it again.
- Example 10.11 is good for elastic potential energy.