

# PHYSICS 160 READING ASSIGNMENT FOR MARCH 6 SECTIONS 6.2 TO 6.4

Please notice that this file is two pages long.

## **6.3 - Kinetic Energy and the Work-Energy Theorem**

- This is how work is going to simplify problem solving.
- Kinetic energy - energy of motion.
- Work-Energy - The total work is equal to the change in kinetic energy.

## **6.4 - Work and Energy with Varying Forces**

- To find the work done by a varying force, we have to find the area under the force-versus-displacement graph.
- The spring force is our main example of the work done by a varying force.
- Work-energy still holds!
- For motion along a curve, read this if you've had Calc. III (or if you'd like to see what you'll be doing in Calc. III). Otherwise, just trust me that the work-energy theorem holds for curved motion.

## 6.5 - Power

- Power,  $P$  - the rate at which work is done.
- Unit of power = Joule per second = Watt.