Notes for lecture 10

1. Date: June 16th.
2. The lecture (see SampleProblems10.pdf) introduces kinetic energy and work done by a force. The key points are as follows.
    a. Definition and calculation of work.
        i The work done by a force is defined for a particle (or point of application of force) moving along a path. The work may or may not depend on the specific path, which in turns depends on the specific force.
        ii Work done by certain types of forces (constant force, gravity force, and spring force is calculated and illustrated by examples.
    b. Work-energy method.
3. This a complimentary method of solving dynamic problems. It does not directly deal with motion equations (but can be derived from them), featuring only work done by a force and the change of kinetic energy. So, in many situations it can produce a shorter way of solving problems.
4. Additional Internet resources
    a. Khan Academy. https://www.khanacademy.org/science/physics/work-and-energy
    b. Work as a line integral https://www.khanacademy.org/math/multivariable-calculus/integrating-multivariable-functions/line-integrals-vectors/v/using-a-line-integral-to-find-the-work-done-by-a-vector-field-example
5. The deadline for submitting assignment (see Assignment10.pdf) is June 23.