Notes for lecture 12

1. Date: June 30th.
2. The lecture (see SampleProblems12.pdf introduces the linear impulse-momentum principle as a way to solve dynamic equations. The key points are as follows.
    a. Definition and linear impulse and momentum.
        i Linear impulse is simply the integral of force over time, while the linear momentum is the product of mass and velocity. They are related by the linear impulse-momentum principle, which, on the surface, is just another way to write Newton equation.
    b. Impact.
        i When constraints are imposed the velocity changes impulsively (not continuously). To establish the velocity when the period of motion (and force action) is relatively short, it is not enough to employ only Newton's equations. In these situations, empirical models, featuring the so-called restitution coefficient, are introduced.
3. The deadline for submitting assignment (see Assignment12.pdf) is July 7.