

# PHYSICS 151 READING ASSIGNMENT

## FOR JULY 3

### SECTIONS 9.5 TO 9.7, 10.1, AND 10.2

Please notice that this file is two pages long.

#### 9.5 Inelastic Collisions

- The precise meaning of an inelastic collision is hard to give since we haven't discussed energy yet. The book's definition is pretty good though.
- Perfectly Inelastic - When the colliding objects stick to each other. We'll do lots of problems like this since they're slightly easier.

#### 9.6 Momentum and Collisions in Two Dimensions

- Lot's of components here, but otherwise, the same as the previous examples

#### 9.7 Angular Momentum

- Skip this for now. If time permits, we'll come back to it after doing chapters 7 and 8.

#### 10.1 The Basic Energy Model

- I find this section to be very interesting, but I think it relies too much on you already knowing what energy is. Still, it's a good summary of the different types of energy and how it can change between them.

## 10.2 Work

- We'll spend a lot of time in lecture on work. It's a physical quantity that we can calculate.
- For a force parallel to displacement, work is force times distance. Its unit is Joules ( $J = N \cdot m$ ). Work is a scalar quantity.
- When force and displacement are in different directions, only the component of the force parallel to the displacement does work.