

## RAA02 – Checklist of things to know/review

*\*RAA02 Contains all information from lectures up to and including lecture 15: Incline planes. Below is a short list of important concepts to understand. The goal of this list is to help you organize your thoughts as you study. This sheet does not contain everything that we covered, just the highlights to help point you in the right direction.*

- All of RAA01 Checklist items
- Physical representations (kinematics)
  - Be sure to include: basic sketch of situation, at least 2 locations, labeled velocity vectors at the locations you chose, acceleration vector, label a horizontal or vertical distance that may be important, and a coordinate system.
- Projectile motion
  - Have you memorized the 3 kinematic equations?
  - Must include the physical representation.
  - Must write down and start with the most general equation and show which quantities go where. (i.e. start with one or more of the 3 kinematic equations in variable form, then plug in your knowns and simplify/solve).
- Newton's three laws of motion.
- Forces
  - Force of gravity
  - Normal force
  - Tension
  - Applied and push forces.
- Analyzing systems with forces
  - Defining a system.
  - Drawing FBDs.
    - FBDs including pulleys.
    - FBDs including incline planes.
  - Translating FBDs into a set of equations using Newton's 2<sup>nd</sup> law to find unknown variables.
- Lab skills
  - Graphing linear lines.
  - Estimating uncertainty with graphs and data.
  - Percent error.