

Physics 211

Elementary Physics

Fall 2012

Instructor: Dr. Geoffrey Lovelace
Sections 1 & 70

Lecture 3 — 9/4/12

I. Introduction to Kinematics = How Things Move

- A. Scalars: Distance, average speed, instantaneous speed
- B. Vectors: Displacement, average velocity, instantaneous velocity
- C. Problem solving strategy & worked example: was I speeding?
- D. Vector: average, instantaneous acceleration

II. Plotting position, velocity and acceleration

- A. Position vs. time
- B. Velocity = slope of position vs. time
- C. Acceleration = slope of velocity vs. time
- D. Demo: motion sensor: student walking, running, basketball

III. Assignments

- A. Reminder: Homework #1 due Thursday, September 6 at 11:59PM
- B. Next class: remainder of chapter 2: free fall, more motion
- C. Class participation: position graph clicker question