

Physics 211

Elementary Physics

Fall 2012

Instructor: Dr. Geoffrey Lovelace
Sections 1 & 70

Lecture 9 — 9/27/12

I. Newton's first and second laws of motion: conceptual

- A. Newton's first law (demo: air puck)
- B. Normal force
- C. Newton's second law (demo: inclined air track)

II. Newton's third law of motion: conceptual

- A. Forces come in pairs of equal magnitude and opposite direction
- B. These forces act on *different* objects
- C. Newton's third law (demo: push off the wall, WALL-E fire extinguisher video)

III. Assignments

- A. For next week: continue reading chapter 4, about free-body diagrams
- B. Homework #4: due 11:59PM tonight
- C. Homework #5: assigned today
- D. Class participation: just your name (ran out of time to pose the planned question)
- E. Midterm Exam #1 results