

Handouts * Syllabus

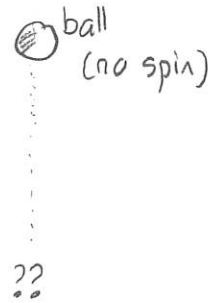
- * Survey - return by Wednesday
- * Attendance sheet

Labs: There will be labs this week. Aug 20-21.

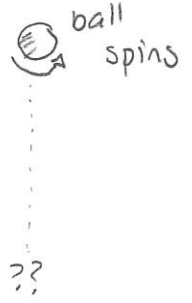
Classical physics

Phys 131 will introduce you to the study of motion and how a system of ideas, concepts and mathematical techniques, called Newtonian mechanics or classical mechanics can describe a wide range of physical situations starting with just three basic laws and a few associated definitions. As an example, consider an object that is dropped either with or without spin. Where will the ball that spins land?

ball
(no spin)



ball
spins

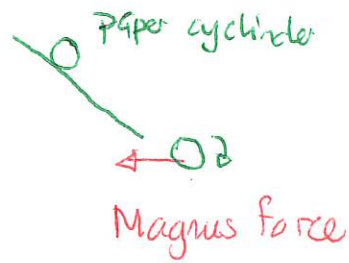
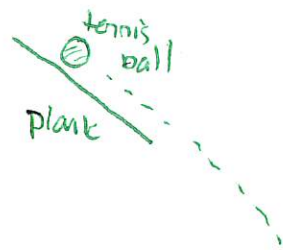


Exercise: * Introduce yourself to your neighbor.

- * Describe - your answer
 - why you think so
 - what evidence you have for your answer
 - ~~what your neighbor~~ - what do you need to consider
- * Assess your neighbor's response.

The laws of classical physics address this issue. It does so by describing various forces that act on the ball. The crucial force is that exerted by air and the associated effect is called the Magnus effect.

DEMO:



DEMO: Veritasium Backspin basketball

Physics 131 will introduce you to the scheme that describes such situations. It addresses: (amongst others)

- 1) falling objects
- 2) spinning and rotating objects.
- 3) sliding objects
- 4) fluids
- 5) orbital motion.
- 6) oscillations

DEMO: Oscillating mass/spring.

Course details

- 1) syllabus and contact
- 2) website/course materials
- 3) exam dates
- 4) D2L page - show text
- 5) Necessary background - no physics.

- math algebra, trig, geometry (vectors + calc later)

FCI