

1/23/2019

Wednesday, January 23, 2019 3:01 PM

Syllabus:

- All course information is listed here in detail.
- Please read carefully.
- Office in Noyce 1034 (x9803)
- First RA Due 1/24 10pm
- First HW due Friday 2/1 at 5pm
- Grading
 - Did you show all relevant work?
 - Did you use appropriate units and significant figures?
 - Did you correctly identify the **relevant** physical processes?
 - Are your results free of mathematical and graphical error?
 - Are your conclusions logical?
 - Are your work and results communicated clearly?

PHY 131	PHY 132
Kinematics	E&M
Forces	Circuits
Mech. Energy	Optics

- Positive, negative charges. Same charges attract, opposite repel.
- Light is an electromagnetic field. Optics is a subject that handles how light is transported.

Electric Charges:

- Electron: negative charge, exist in bands outside of the nucleus
- Proton: exists in nucleus, positively charged (equal in magnitude to electron charge)
- Neutron: exists in nucleus, net neutral charge
- Conductor: something that an electrical current can flow through
- Insulator: electrical current doesn't flow through these materials

Static Electricity:

- Electrostatic paint spray
 - The paint gun nozzle has a positive charge, and the car is negatively charged.
 - The paint will collect some positive charge from the nozzle, and it will evenly distribute over the car.