

What are the courses about?

What are the requirements?

Who should take it and why?

# AP PHYSICS 1 + AP PHYSICS C

# This Course is About . . .

## AP PHYSICS 1

- Classical Mechanics and Circuits
  - How do single objects move by themselves and interact with others?
  - How do objects spin?
  - How do we send signals?
- Experimental Design
  - What questions are worth asking?
  - How can you plan an experiment that will answer your question?
  - How will you know that your data have satisfactorily answered your question?
- Scientific Argumentation
  - Form your own ideas **around** evidence.
  - Use that evidence in presenting your ideas.
  - Use logical arguments to point out flaws in your own ideas and the ideas of others.

## AP PHYSICS C

- Classical Mechanics, Circuits, and Electromagnetism (With Calculus)
  - How does the shape of an object affect how it moves by itself and interacts with others?
  - Why are some materials magnetic and how is electricity *related* to magnetism?
- Experimental Design
  - What questions are worth asking?
  - How can you plan an experiment that will answer your question?
  - How will you know that your data have satisfactorily answered your question?
- Scientific Argumentation
  - Form your own ideas **around** evidence.
  - Use that evidence in presenting your ideas.
  - Use logical arguments to point out flaws in your own ideas and the ideas of others.

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- Experimental Design
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- Scientific Argumentation
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  - Use that evidence in presenting your ideas.
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# You should consider taking these courses if . . .

- You plan to major in any type of engineering (including computer) or physical science.
- You are planning on a career in the biological or medical sciences.
- You've ever wondered . . .
  - why water doesn't fall out of a straw when you stick your thumb on top.
  - how musical instruments are designed to get the notes right.
  - what would happen if you drilled a hole through the center of the earth and dropped a soccer ball into the hole.
  - Why Isaac Newton invented Calculus in the first place.

# Potential Students should . . .

## AP PHYSICS 1

- Have successfully completed Geometry by the start of the next school year.
- Have successfully completed or be enrolled in Algebra II by the fall semester of next year.
- **Be willing to become creative and risk-taking problem-solvers.**

## AP PHYSICS C

- Have successfully completed Physics P or AP Physics 1 by the start of the next school year.
- Have completed or be enrolled in AP Calculus AB or AP Calculus BC by the fall semester of next year.
- **Be willing to become creative and risk-taking problem-solvers.**