

# AP Physics 2

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**Grade Levels:** 11th - 12th

**Prerequisites:** AP Physics C is designed as an optional follow-up to AP Physics 1 and/or 2 or as a stand-alone 'first AP Physics' class for an advanced, upper-level student who has taken or, at a minimum, is concurrently taking Calculus. Students should at a minimum have taken pre-calculus; the course will be easier if they have taken calculus. If a student has not taken calculus yet, they should be concurrently enrolled in a calculus class and prepared to get a "quick-start" introduction to those subjects in this class.

**Course Numbers:** 1738AP1, 1738AP2

**Credit Type:** Elective

**Course Description:**

Explore the mysteries of advanced physics topics including fluid statics and dynamics; thermodynamics with kinetic theory; electrostatics; electrical circuits, and magnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. You will develop scientific critical thinking and reasoning skills and explore subjects including entropy, the behavior of gasses and fluids, the behavior of light, and the structure of the atom with exciting hands-labs in a course patterned after an algebra-based college class in electricity and magnetism.

AP Physics 2 is designed as an optional sequel to AP Physics 1, proceeding at the same difficulty level (algebra-based) with new topics. It's a full AP class with its own test, moving beyond Newton to fields of physics that are integral to our understanding of the natural world. The course is based on seven Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world

**Student Workload:**

The grade is based primarily on tests and lab papers, just like college. Four in-depth papers will be assigned over the course of the year. Homework packets are self-directed and assigned for every unit, so there will always be work that you can do, but the packets aren't graded and are instead used as "retake tickets" if you need to retake a test.

**Links:**

[AP Physics 2 Slideshow](#)