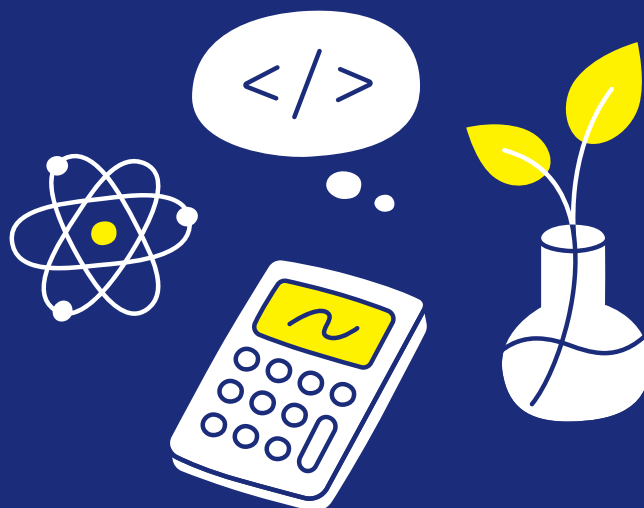




Advance in STEM

Prepare more students for
success in STEM.



Students notice a STEM commitment when it's reflected in the advanced courses available to them. AP® can help your school strengthen its STEM pathway by ensuring students have access to a fuller range of rigorous math, science, and technology opportunities before they graduate.

Students are more likely to pursue and succeed in STEM when they have access to rigorous math, science, and technology courses that build in a clear sequence. These AP courses give students the opportunity to take college-level STEM coursework, with the chance to earn college credit, advanced placement, or both.

They develop the quantitative reasoning, modeling, and problem-solving skills students need for STEM majors and careers. Because each AP course stands on its own, schools can start with one and add others over time, building a stronger pathway into advanced STEM coursework in a way that fits staffing, scheduling, and student demand.

What These Courses Enable

- **Alignment:** Stronger alignment between your AP offerings and your school's STEM priorities
- **Program Coherence:** A clear progression from foundational to advanced STEM courses
- **Availability:** Chance for more students to experience college-level STEM coursework
- **Growth:** A practical way to expand your AP or STEM program without overloading your master schedule



Courses

AP Biology
AP Calculus AB
AP Calculus BC
AP Chemistry
AP Computer Science A
AP Environmental Science
AP Physics 1:
Algebra-Based
AP Physics 2:
Algebra-Based
AP Physics C: Electricity
and Magnetism
AP Physics C: Mechanics
AP Precalculus
AP Research
AP Statistics

Why These Courses Work

Course	What students learn	How students become prepared for success in STEM
AP Biology	How living systems grow, adapt, and evolve — through genetics, ecology, energy, and inquiry-based lab investigation	Strengthens preparation for biology, health science, and other advanced STEM pathways
AP Calculus AB	How to use differential and integral calculus to model change, analyze functions, and solve real-world problems	Serves as a core gateway course for many STEM majors and advanced quantitative study
AP Calculus BC	How the full scope of introductory calculus extends into parametric, polar, and vector-valued functions and infinite series	Extends advanced math study for students ready to move beyond first-semester calculus
AP Chemistry	How atoms, molecules, energy, and chemical reactions explain the properties and behavior of matter	Prepares students for further study in chemistry, biology, engineering, and health sciences
AP Computer Science A	How to design, write, and test programs using Java — including algorithms, data structures, and object-oriented design	Adds a clear computing pathway within STEM and develops computational thinking
AP Environmental Science	How to use scientific principles and methods to understand environmental systems, analyze problems, and evaluate solutions	Offers an accessible entry into STEM through applied science and real-world problem-solving
AP Physics 1: Algebra-Based	How motion, forces, energy, momentum, oscillations, and fluids follow predictable physical laws — explored through modeling and inquiry	Opens the door to physics for students who aren't yet in calculus and builds STEM reasoning early
AP Physics 2: Algebra-Based	How electricity, magnetism, light, waves, thermodynamics, and modern physics explain physical systems	Extends algebra-based physics study and builds modeling, lab, and quantitative reasoning skills
AP Physics C: Electricity and Magnetism	How to use calculus to analyze and explain electric fields, circuits, magnetism, capacitors, and electromagnetic induction	Supports students pursuing electrical engineering, physics, electronics, and advanced physical science pathways
AP Physics C: Mechanics	How to use calculus to analyze and explain motion, forces, energy, momentum, rotation, and oscillation	Supports students pursuing mechanical engineering, aerospace, robotics, and advanced physical science pathways
AP Precalculus	How to use functions to model patterns, systems, and real-world change — including exponential, trigonometric, and other function families	Builds a strong foundation for calculus and supports further study across mathematics, science, business, and data science
AP Research	How to design and carry out independent research — from developing a question through evidence analysis, academic writing, and oral defense	Builds research, analysis, project management, and communication skills used across STEM fields
AP Statistics	How to collect, analyze, and draw conclusions from data, including sampling, probability, and inference	Strengthens data literacy and quantitative decision making used across STEM fields

How These Courses Can Work in Your School

- **Replace, not rebuild:** Swap an existing course with its AP equivalent—using the staff, schedule, and structures you already have.
- **Enhance what you offer:** Add an AP course to an existing course progression in science, math, or technology.

How Your Teachers Get Started

- 1**
Review the course and exam description.
- 2**
Schedule a free 1:1 Zoom Chat to talk through course content and skills.
- 3**
Initiate the AP Course Audit.
- 4**
Request a grant to attend professional learning.
- 5**
Register for an AP Summer Institute.

Take the Next Step



Learn More

Explore this approach and learn more about this set of AP courses at:
cb.org/ap-advance-stem



Get Connected

Scan the QR code and complete the short AP Interest Form to get connected.

