

# Physics I

In this laboratory-based course, students develop higher-order thinking skills needed to understand, explain, analyze and communicate about force and motion, forces, and energy. Students will use multiple representations including diagrams, graphs, algebra, and written descriptions to model first-year physics concepts. Units of study include motion, forces, energy and momentum, mechanical and electromagnetic waves and electric circuits. Students use technology including graphing calculators, computer simulations, and probe ware to explore these concepts. This curriculum aligns with the Virginia Physics Standards of Learning with a focus on observing, experimenting, and modeling.

**High School Credits:** 1

**School Level:** High School

**Grade:** 11, 12

**Prerequisites:**

Algebra I and Geometry

**Co-Requisites:**

Algebra II or higher level math class

**Program:** Science Core Courses