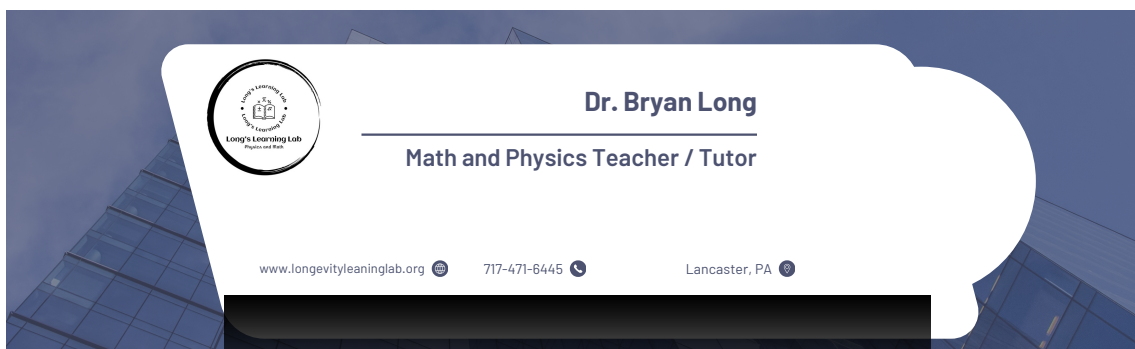




Below are two charts that describe typical topics IB Physics and AP Physics 1 & 2. Dr. Long can teach any of these topics and/or provide homework help. Dr. Long believes a mastery of HS Physics requires consistent practice and explanation.

International Baccalaureate Physics Topics: Higher Level & Standard Level

Physics syllabus content overview

A. Space, time and motion	B. The particulate nature of matter	C. Wave behaviour	D. Fields	E. Nuclear and quantum physics
A.1 Kinematics •	B.1 Thermal energy transfers •	C.1 Simple harmonic motion ••	D.1 Gravitational fields ••	E.1 Structure of the atom ••
A.2 Forces and momentum •	B.2 Greenhouse effect •	C.2 Wave model •	D.2 Electric and magnetic fields ••	E.2 Quantum physics •••
A.3 Work, energy and power •	B.3 Gas laws •	C.3 Wave phenomena ••	D.3 Motion in electromagnetic fields •	E.3 Radioactive decay ••
A.4 Rigid body mechanics •••	B.4 Thermodynamics •••	C.4 Standing waves and resonance •	D.4 Induction •••	E.4 Fission •
A.5 Galilean and special relativity •••	B.5 Current and circuits •	C.5 Doppler effect ••		E.5 Fusion and stars •

• Topics with content that should be taught to all students

•• Topics with content that should be taught to all students plus additional HL content

••• Topics with content that should only be taught to HL students

Advanced Placement Physics

AP Physics 1	AP Physics 2
Kinematics	Thermodynamics
Dynamics	Fluid Mechanics
Circular Motion and Gravitation	Electrostatics
Energy	Electric Circuits
Momentum and Impulse	Magnetism
Simple Harmonic Motion	Geometric and Physical Optics
Torque and Rotational Motion	Quantum, Atomic, and Nuclear Physics
Work and Energy	