

Science Infinity Physics 1 Syllabus

Physics 1 is an algebra-based introductory physics course that builds up to physics 2. The focus on Newtonian mechanics builds basic mathematical frameworks and problem solving skills and intuitions that are vital to making progress in more advanced physics topics. An introduction to materials is given at the end of the course.

Supplies Students should bring a notebook and pencil to class every day to take notes and practice during class. In addition, a calculator is very useful and highly recommended.

Unit	Topics
Newton's Laws of Motion	Newton's first law 1-D kinematics Newton's second law Newton's third law
Mechanics	Momentum Impulse Collisions Work Energy
Rotation	Moment of Inertia Rotational kinematics Rotational dynamics Rotating reference frames Angular momentum
Astrophysics	Gravitation Tides Orbital mechanics Kepler's laws of planetary motion
Material Science	Atoms Solids Liquids Fluid mechanics