

Table 1: Physics 1 - recommended subjects for different levels

Subject	A	B	C
Measurements	Y	Y	Y
1D motion	Y	Y	Y
Vectors	Y	Y	Y
2D and 3D motion	Y	Y	Y
Reference frames and Galileo relativity: inertial frames	Y	Y	Y
Noninertial frames: 1D accelerated frames, inertial force	Y	Y	
Noninertial frames: rotating frames, centrifugal and Coriolis forces	Y		
Newton's laws	Y	Y	Y
Various forces: gravity, friction)	Y	Y	Y
Various forces: drag	Y		
Work and kinetic	Y	Y	Y
Work as a path integral (calculations)	Y		
Conservative and non-conservative forces	Y	Y	Y
Potential energy	Y	Y	Y
Potential energy as a path integral (calculations)	Y		
Energy conservation	Y	Y	Y
Momentum, Newton's second law and momentum conservation	Y	Y	Y
Systems of particles: center of mass	Y	Y	Y
Collisions: general	Y	Y	Y
Simple inelastic collisions	Y	Y	Y
1D elastic collisions	Y	Y	
2D elastic collisions	Y		
Rotational dynamics: moment of inertia, torque, angular momentum, kinetic energy of a rotating rigid body	Y	Y	Y
Rolling	Y		
Oscillations: simple harmonic motion	Y	Y	Y
Damped and forced oscillations, resonance (qualitatively)	Y	Y	Y
Damped and forced oscillations, resonance (quantitatively)	Y		
Gravity	Y		

Table 2: Physics 2 - recommended subjects for different levels

Subject	A	B	C
Electric charge, Coulomb law, electric field	Y	Y	
Electric fields: dipole, line of charge, charged disk	Y	Y	
Dipole in in external electric field	Y		
Gauss' law with applications	Y	Y	
Electric potential	Y	Y	
Electric potentials: point charge, dipole, continuous charge distribution	Y	Y	
Capacitance and capacitors, dielectrics	Y	Y	
Current and resistance	Y	Y	
Circuits: direct current, resistors and emf, loop laws	Y	Y	
RC circuits	Y		
Magnetic fields: magnetic force on a charged particle and current, magnetic torque on a current loop	Y	Y	
Magnetic fields: Bio-Savard and Ampere laws and applications	Y	Y	
Induction: Faraday's law, Lenz's law	Y	Y	
Inductance and self induction	Y	Y	
RL circuits	Y		
LC circuit	Y		
Alternating current and RLC circuit	Y		
Maxwell's equations	Y		
Magnetism	Y	Y	
Electromagnetic waves	Y		