AP Physics Mechanics

1. Kinematics
2. Motion in one-dimension
3. Motion in two-dimensions, including projectile motion
4. Newton’s Laws of Motion
5. Static equilibrium (First Law)
6. Dynamics of a single particle (Second Law)
7. Systems of two or more bodies (Third Law)
8. Work, Energy, Power
9. Work and work-energy theorem
10. Conservative forces and potential energy
11. Conservation of energy
12. Power
13. Systems of Particles, Linear Momentum
14. Center of mass
15. Impulse and momentum
16. Conservation of linear momentum, collisions
17. Circular Motion and Rotation
18. Uniform circular motion
19. Angular momentum and its conservation
20. Point particles
21. Extended bodies, including rotational inertia
22. Torque and rotational statics
23. Rotational kinematics and dynamics
24. Oscillations and Gravitation
25. Simple harmonic motion (dynamics and energy relationships)
26. Mass on a spring
27. Pendulum and other oscillators
28. Newton’s Law of Universal  Gravitation
29. Orbits of planets and satellites
30. Circular

General