

- Planes of motion and their associated axis' of rotation
- Types of muscle actions (Isometric, concentric, eccentric, etc.)
- Definition of force and how muscles produce force
- Newton's Laws (For both linear and angular motion)
- Gravity
- Linear kinematics (Definition and formulas)
 - Velocity/Speed: How fast an object is changing position
 - Acceleration: How quickly the velocity/speed change
 - Displacement/Distance: Change in position
- Projectile motion
- Stability and the center of gravity
- Relationship between linear and angular motion
- Torque and angular kinetics
 - Moment arm
 - Moment of Inertia
 - Angular Momentum
- Angular kinematics (Definition and formulas)
 - Angular Velocity/Speed: How fast an object is changing position around an axis
 - Angular Acceleration: How quickly the velocity/speed change around the axis
 - Angular Displacement/Distance: Change in position about an axis
- Classification of levers
- Types of energy
 - Potential energy
 - Kinetic energy
 - Strain (elastic) energy