B.Sc. Semester-II
Course code: PH-MDC-1

Total Credits: 04 (Theory: 2, Practical; 2)

Total Hrs: Theory: 30, Practical: 60

Course Title: Motion and Force

PH-MDC-2 (Theory)

Unit 1	**Rest and Motion:** Kinematics, Rest and Motion, Average Speed and Instantaneous Speed, Average Velocity and Instantaneous Velocity, Average Acceleration and Instantaneous Acceleration, Motion in a Plane, Projectile Motion, Examples
Unit 2	**The Forces:** Introduction, Gravitational Force, Electromagnetic (EM) Force, Nuclear Forces, Weak Forces, Scope of Classical Physics **Newton's Laws of Motion**: First Law of Motion, Second Law of Motion, Working with Newton's First and Second Law, Newton's Third Law of Motion, Pseudo Forces5.6 The Horse and the Cart5.7 Inertia ,Examples

Reference books:

1. Concepts of Physics part 1 by H.C.Verma (second reprint addition 2020)
2. Physics by Halliday, Resnick and Krane volume 1 (Fifth addition)