

**PHY2400+2400L - PHYSICS I – CALCULUS BASED PHYSICS FOR THE MAJOR
(W/LABS)**

4+1 Semester Hours

Co-requisites: Calculus I.

1. Kinematics – one and two dimensional
2. Vectors – vector Arithmetic
3. Force and Newton's Laws of Motion
4. Work, Energy, Conservation of Energy
5. Linear momentum
6. Collisions
7. Rotational kinematics and dynamics
8. Angular momentum and rotational energy
9. Simple harmonic motion
10. Waves and sound
11. Solid and fluid properties
12. Heat and thermodynamics
13. Kinetic theory of gases