

## **IT-404: Fundamentals of Physical Sciences**

**Objective:** The introduction of fundamentals of Physical sciences in order to capture physical picture of any system and modeling.

**Topics to be covered:** Newtonian Mechanics, Lagrangian and Hamiltonian formulations, small oscillations, principle of least action, basic quantum mechanics, basic thermodynamics, basic statistical mechanics, chemical kinetics.

### **Recommended Books**

1. Arthur Baiser, Concepts of Modern Physics, Mc Graw Hill.
2. Kerson Huang, Statistical Mechanics, Wiley Students Edition.
3. H. Goldstein, Classical Mechanics, Pearson.
4. LI Schiff, Quantum Mechanics