



[Ls Magazine Issue 14 Everything About Me Lsm14 01](#)

**SEMESTER-1**  
**TOPICS TO BE COVERED: CLASSICAL MECHANICS, EXPERIMENTAL PHYSICS,**  
**MATHEMATICAL PHYSICS, ATOMIC AND MOLECULAR PHYSICS**  
**LAB: BASIC PHYSICS LABORATORY-I**

**CLASSICAL MECHANICS**

**Lagrangian formulation:** Generalized coordinates, Lagrange's equations of motion, cyclic coordinates, integrals of motion, Jacobi integrals, energy conservation, symmetry, Galilean invariance. 15hrs

**Hamiltonian formulation:** conservative systems, Hamilton's function and Hamilton's equation of motion, phase space, Poisson brackets 10hrs

**Hamilton-Jacobi Theory:** action-angle variables, Liouville's theorem, examples. 7hrs

**Variational principle:** variational principle, applications, shortest distance problem, brachistochrone. 9hrs

**Rotational motion:** Rotating frame of reference, inertial forces in rotating frames, effects of coriolis force, Foucault's pendulum, Larmor's precession 11hrs

**Central force:** Two body central force problem, Kepler's problems, virial theorem 8hrs

**Reference Books :**

1. Classical Mechanics by H.Goldstein, Narosa Publishing Home,, New Delhi.
2. Classical Dynamics of Particles and Systems by Marion and Thomtron, Third Edition, Horoloma Book Jovanovich College Publisher.
3. Classical Mechanics by P.V.Panat, Narosa Publishing Home,, New Delhi.
4. Classical Mechanics by N.C.Rana and P.S.Joag, Tata Mc-Graw Hill Publishing Company Limited, New Delhi.
5. Introduction to Classical Mechanics by R.G.Takawale and P.S.Puranik, Tata Mc-Graw Hill Publishing Company Limited, New Delhi.
6. Classical Mechanics by J.C.Upadhyaya, Himalaya Publishing House.

---

[Ls Magazine Issue 14 Everything About Me Lsm14 01](#)



**Download**



---

**SEMESTER-1**  
**TOPICS TO BE COVERED: CLASSICAL MECHANICS, EXPERIMENTAL PHYSICS,**  
**MATHEMATICAL PHYSICS, ATOMIC AND MOLECULAR PHYSICS**  
**LAB: BASIC PHYSICS LABORATORY-I**

**CLASSICAL MECHANICS**

**Lagrangian formulation:** Generalized coordinates, Lagrange's equations of motion, cyclic coordinates, integrals of motion, Jacobi integrals, energy conservation, symmetry, Galilean invariance. 15hrs

**Hamiltonian formulation:** conservative systems, Hamilton's function and Hamilton's equation of motion, phase space, Poisson brackets 10hrs

**Hamilton-Jacobi Theory:** action-angle variables, Liouville's theorem, examples. 7hrs

**Variational principle:** variational principle, applications, shortest distance problem, brachistochrone. 9hrs

**Rotational motion:** Rotating frame of reference, inertial forces in rotating frames, effects of coriolis force, Foucault's pendulum, Larmor's precession 11hrs

**Central force:** Two body central force problem, Kepler's problems, virial theorem 8hrs

**Reference Books :**

1. Classical Mechanics by H.Goldstein, Narosa Publishing Home,, New Delhi.
2. Classical Dynamics of Particles and Systems by Marion and Thomtron, Third Edition, Horoloma Book Jovanovich College Publisher.
3. Classical Mechanics by P.V.Panat, Narosa Publishing Home,, New Delhi.
4. Classical Mechanics by N.C.Rana and P.S.Joag, Tata Mc-Graw Hill Publishing Company Limited, New Delhi.
5. Introduction to Classical Mechanics by R.G.Takawale and P.S.Puranik, Tata Mc-Graw Hill Publishing Company Limited, New Delhi.
6. Classical Mechanics by J.C.Upadhyaya, Himalaya Publishing House.

---

a178309ace

[Advanced Plo Theory Tom Chambers Pdf 21](#)  
[Struktur Beton Bertulang Istimawan Dipohusodo Pdf Free](#)  
[planisferio sin nombres con division politico pdf download](#)  
[microwaves and radar by giridhar 16](#)  
[Kanchana Ganga Kannada Movie Mp3 Songs Download](#)  
[Mac Unable To Expand Zip Error 2](#)  
[prince of persia forgotten sands patch 1.1 32](#)  
[baxter kelly dog sex genuine9](#)  
[theadamsfamilyvalues720torrent](#)  
[jad pachia pinda ne teri mari song of honey singh](#)