

SYLLABUS :-

Pre requisite: void

Dynamical systems, generalized coordinates, degrees of freedom, holonomic and non-holonomic systems, Lagranges equations for holonomic systems, Lagranges equation for impulsive forces and for systems involving dissipative forces, conservation theorems, Hamiltons principle and principle of least action, Hamiltons canonical equations, canonical transformation with different generating functions, Lagrange and Poisson brackets and their properties, Hamilton-Jacobi equations and separation of variables, Euler-Lagrange equations and its generalizations, degenerate Euler equations, natural boundary conditions, transversality conditions, extremals with corners, isoperimetric problem.