

Course Outcomes

Dr. Jyotipratim Ray Chaudhuri

Course: - B.Sc. (Hons.) in Physics

Course Title: PHYH-C I: MATHEMATICAL PHYSICS-I

After completion of this course, student will be able to

- Handle infinite series, how to approximate it and its convergence properties.
- Plot and characterize various types of plane curves.
- Learn basic calculus based mathematical methods including differential equations to handle basic physical problems like simple oscillations, electrical circuits, etc.
- Model mathematically several simple physical processes like radioactive decay.
- Handle multivariable function.
- Learn an essential tool for higher physics namely vector algebra and vector calculus including vector differentiation, integration and related theorems.
- Learn to express several physical laws and solve the problem in different convenient coordinate systems apart from Cartesian coordinate system especially giving emphasis on plane polar, spherical polar and cylindrical polar coordinate systems.
- Learn random variables and associated probability distribution including Dirac delta function giving stress on binomial and normal distribution.