

Course Number

MTH-334-01

Course Description

Partial differential equations (PDEs) are formulated to describe a wide range of phenomena in engineering, natural and social sciences. We will study the theories and models of PDEs. Analytical and numerical methods are introduced to examine the solutions of elliptic, parabolic, and hyperbolic types of PDEs. Topics include the formulation of PDEs using conservation laws, classification, solution methods for the wave, diffusion, and Laplace equations, boundary value problems, separation of variables, Green's functions, Fourier series and transforms, stability and convergence. Students will be exposed to both theoretical and applied aspects. Computing tools (such as Mathematica or Matlab) will also be introduced.

Academic Term

22/SP

Credits

1.00

Capacity

20

Total Students

0

Academic Department

Mathematics

Field Of Study

Mathematics (MTH)