Core Course Outcome

B.Sc Mathematics

Name of the paper	Course outcome
Foundation of Mathematics	• Lays the foundation of basic concepts of mathematics which are frequently used in successive semesters.
Calculus	• Explains the applications of integration and various theorems related to differentiation
Calculus and Analytic Geometry	• Introduces Sequences and series • Introduces Transcendental functions • IntroducesPower series and Conic Sections
Theory of Equations, Matrices and Vector Calculus	• Explains Theory of Equations • Explain Matrices and different co-ordinate systems
Vector Calculus	• Introduces Multivariable functions and Partial Derivatives • Introduces Double and Triple integrals in various coordinate system
Abstract Algebra	• Introduces Groups • Introduces Cyclic groups, • IntroducesHomomorphisms • IntroducesRings and Fields
Basic Mathematical analysis	• Explains algebraic and completeness property of real numbers • Explains Sequences of real numbers • Explains Complex numbers
Differential Equations	• Explains Classification of Differential equations • Explains First order Differential equations • Introduce Second order Differential equations and systems of first order linear equations • Introduce Laplace Transforms and Fourier Series
Real Analysis	• Introduces Riemann integral • Explain sequence and series of functions • IntroducesImproper integrals and continuous functions
Complex Analysis	• Introduces Analytic functions • IntroducesComplex integrals • Introduces Complex series • IntroducesResidues and applications of Residues
Numerical Methods	• Explains solution of algebraic and transcendental equation • IntroducesInterpolation • Explain Matrices and linear system of equations • numerical solutions of ordinary differential equations
Number theory and	• Explains theory of numbers

linear algebra	• Fermat's little theorem • vector spaces and linear transformations
Linear programming	• Introduces Simplex method • Transportation problem and assignment problem
Project	• To Promote independent study and research in new areas