

## **Course Outcome of B.Sc. General Mathematics (CBCS)**

Semester	Course	Course Outcome
Semester -1	CC1/GE1 (Algebra-I, Differential Calculus - I, Differential Equation - I, Coordinate Geometry )	Ability to solve polynomial equations and to find the nature of their roots, to define some complex functions like exponential, hyperbolic, logarithmic functions. In differential calculus-I students can learn how to represent real numbers geometrically in real line, basic ideas of real valued functions and their limit, continuity, differentiability, geometrical explanation of derivatives, relation between derivative and continuity , derivatives of more than one variables, Cauchy's theorem Schwartz's theorem, Euler's Theorem. Students will also be able to find the derivatives of higher orders of the product of two or more functions.
Semester 2	CC2/GE2 (Differential Calculus - II, Differential Equation - II, Vector Algebra, Discrete Mathematics )	In differential calculus - II students can learn about different type of sequences, series and their convergence. Also students can acquire the knowledge how to expand and a real valued function on an interval. They can find the maximum or minimum value of a function. Students can easily find the limits of some complicated functions. In differential equation-II of this core course students gain the knowledge of solving linear homogeneous and non-homogeneous equations, simultaneous equations. Gain the

		knowledge of solving basic partial differential equations. In discrete mathematics students can learn basic theorems in elementary number theory. Ability to determine rules how a positive integer is divisible by another positive integer. Techniques to find integral solutions of systems of linear equations. Students can also check whether a ISBN no. or a credit card no. is true or false. Ability to determine a schedule of a tournament, to detect error in UPC.
Semester 3	CC3/GE3 (Integral Calculus, Numerical Method, Linear Programming)	In this course students get the basic idea of improper integral and it's various applications. In Numerical Analysis students attain the knowledge of polynomial interpolation, numerical integration techniques as well as solving non-linear equations using Newton-Raphson method . These are very useful methods which trains students to develop many ideas .
Semester 4	CC4/GE4 (Algebra II, Computer Science & Programming, Probability & Statistics)	
Semester 3	SEC A1 (Programming Language )	.
Semester 4	SEC B1(Mathematical Logic)	
Semester 5	SEC A2(Object Oriented Programming in C++)	
Semester 6	SEC B2(Booleam Algebra)	
Semester 5	DSE A (Particle Dynamics)	In this special paper , students get the idea of motion in one dimension as well as two dimension under gravity or

		<p>any sort of attractive , periodic forces. Planetary orbit motion using Kepler's Three Laws are also being taught. Motion in resisting media under gravity as well as in constrained motion are also discussed .</p> <p>Tangential-normal acceleration in case of cartesian coordinate and radial-cross-radial component of velocity, acclrn. Are also being taught.</p> <p>Completing this course students get a comprehensive idea of dynamical motion and it's analysis.</p>
Semester 5	DSE A (Graph Theory)	i
Semester 6	DSE B (Advanced Calculus)	
Semester 6	DSE B (Mathematical Finance)	