MATHEMATICS (COMPLEMENTARY COURSE FOR B.Sc CHEMISTRY) OUTCOME

Sl No	Name of the paper	Course Code	Course outcome
1	Mathematics-1	MTS1 C01	Lays the foundation of limits and continuity, derivatives, application of derivatives, integration Gives an idea of Fractional Power & Implicit Differentiation-rational power of a function rule, implicit differentiation Gives an idea of Anti derivatives, anti-differentiation and indefinite integrals, Definite and Indefinite integral-indefinite integral test, properties of definite integral, fundamental theorem of calculus: alternative version
2	Mathematics-2	MTS2 C02	Lays foundation of Polar coordinates and Trigonometry, Inverse functions, inverse function test, inverse function rule, Hyperbolic functions, Inverse hyperbolic functions, Arc length and surface area-Length of curves, Area of surface of revolution about x and y axes Improper integrals, Numerical Integration, Power series, Taylor's formula Vector spaces systems of Linear Algebraic Equations, Vector spaces systems of Linear Algebraic Equations ,Diagonalization-LU Factorization
3	Mathematics-3	MTS3 C03	Lays foundation of Vector Functions ,Motion on a Curve, Curvature and components of Acceleration, Partial Derivatives, Directional Derivative Understand Line Integrals, independence of Path ,double Integral Line Integrals-independence of path, Double Integrals in Polar Coordinate, Green's Theorem, Surface Integral-Stokes's Theorem Understand Triple Integral, Divergence Theorem, Change of Variable in Multiple Integral, Complex Numbers, Powers and

			roots, Functions of a Complex Variable, Exponential and Logarithmic function
			Understand Contour integral, Cauchy-Goursat Theorem, dependence of Path, Cauchy's Integral Formula
4	Mathematics-4	MTS4C04	Lays foundation of Ordinary Differential Equations Higher Order Differential Equations Laplace Transforms
			Lays foundation of Orthogonal Functions, Fourier Series-Fourier Cosine and Sine Series-Separable Partial Differential Equations, Classical PDE's and BVP'sHeat Equation