Course Name: Geometry

Course Code: MAT 611

Credit-04

SYLLABUS

Space Curves.Normal and Binormal.Curvature and Torsion. Fundamental Existence Theorem for space curves. Intrinsic Properties of a Surface.Surface of Revolution and Geodesics.

Fundamental Forms, Angle between Parametric Curves, Orthogonal Trajectories. n- Dimensional Space. Dummy Suffix Real Suffix, Transformation of Coordinate and Contravariant, Covariant, Addition, Subtraction & Multiplication of Tensor. Inner Product.

Metric and angle between two vector & Coordinate Curve.Gradient of a Scalar Function, Christoffel Symbols or Christoffel Brackets.Tensor Laws of Transformation of Christoffel Symbols.Divergence and Curl of a Vector.