

### **MTH 317 DIFFERENTIAL GEOMETRY: (3 Units) (L 30: PO: TIS)**

Vector functions of a real variable. Soundness. Limits. Continuity and differentiability. Functions of Class  $C^m$ . Taylor's Formulae. Analytic functions. Curves: regular, differentiable and smooth. Curvature and torsion. Tangent line and normal planes Vector: Functions of Vector Variable: Linear continuity and limits. Directional functions of Class  $C^m$ . Taylor's theorem and inverse function theorem. Concept of a surface; parametric representation, tangent plane and normal lines. Topological properties of simple surfaces. **MTH -313.**