

MTH 103 ELEMENTARY MATHEMATICS III: (3 Units) (L30: P 0: T 15)

(Vectors, geometry and dynamics)

Geometric representation of vectors in 1-3 dimensions, components, direction cosines. Addition, Scalar, multiplication of vectors, linear independence. Scalar and vector products of two vectors. Differentiation and integration of vectors with respect to a scalar variable. Two-dimensional coordinate geometry. Straight lines, circles, parabola, ellipse, hyperbola. Tangents, normals. Elementary Mathematics IV. Impact of two smooth sphere, and of a sphere on a smooth sphere.