

MA1130: VECTOR CALCULUS

(PREREQUISITE(S): MA1110, MA1120) CREDIT: 1

Double and Triple Integrals: Calculations, Areas, Volumes, change of variables, Applications.

Integrals of Vector Functions: Line integrals, Greens formula, path independence, Surface integral: definition, evaluation, Stokes formula, Gauss-Ostrogradsky divergence theorem.

READING MATERIAL:

- N.Piskunov, Differential and Integral Calculus, Volume I and II, Mir Publishers, Moscow.
- Kreyszig. E. Advanced Engineering Mathematics, John Willey, 2006.
- Thomas. G.B., and Finney, R.L., Calculus and analytic Geometry, Addison Wesley-person (India), 2007.