



Dharampeth M. P. Deo Memorial Science College, Nagpur
Syllabus wise You Tube Links

B. Sc. SEM II (Mathematics)

M-4: Vector Analysis

Unit I

Vector differentiation, Differential Geometry

<https://www.youtube.com/watch?v=FfJtVvQtqTM&list=PLU6SqdYcYsfJz9FAzbgocIjlkW4NXAar->

Gradient, Divergence and Curl.

<https://www.youtube.com/watch?v=FfJtVvQtqTM&list=PLU6SqdYcYsfJz9FAzbgocIjlkW4NXAar-&index3>

Unit II

Double integration, Evaluation of double integrals

<https://www.youtube.com/watch?v=FfJtVvQtqTM&list=PLU6SqdYcYsfJz9FAzbgocIjlkW4NXAar->

Change of order of integration, Application of double integrals, Area in polar coordinates

<https://www.youtube.com/watch?v=FfJtVvQtqTM&list=PLU6SqdYcYsfJz9FAzbgocIjlkW4NXAar-&index2>

Triple integration

<https://www.youtube.com/watch?v=FfJtVvQtqTM&list=PLU6SqdYcYsfJz9FAzbgocIjlkW4NXAar-&index4>

Gamma function, Transformation of Gamma function,

<https://www.youtube.com/watch?v=FfJtVvQtqTM&list=PLU6SqdYcYsfJz9FAzbgocIjlkW4NXAar-&index6>

Beta function, Evaluation of Beta function, Symmetric property of Beta function, Transformation of Beta function

<https://www.youtube.com/watch?v=FfJtVvQtqTM&list=PLU6SqdYcYsfJz9FAzbgocIjlkW4NXAar-&index7>

Relation between Beta and Gamma functions

<https://www.youtube.com/watch?v=FfJtVvQtqTM&list=PLU6SqdYcYsfJz9FAzbgocIjlkW4NXAar-&index9>



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Unit-III

Ordinary integral of vectors, Line integral, Surface integral, Volume integral.

<https://www.youtube.com/watch?v=FfJtVvQtqTM&list=PLU6SqdYcYsfJz9FAzbgocJlkw4NXAar->

Unit IV

Green's Theorems in the plane and its application, Gauss Divergence Theorem, Stokes' Theorem.

<https://www.youtube.com/watch?v=FfJtVvQtqTM&list=PLU6SqdYcYsfJz9FAzbgocJlkw4NXAar->