BS1104   **<u>MATHEMATICS-II</u>**   **(3-1-0)**

(2nd Sem)

Module – I   (15 Hours)

Laplace transformation and its use in getting solution to differential equations, Convolution , Integral equations
Fourier series, Fourier expansion of functions of any period, Even and odd functions, Half range expansion

Module – II   (15 Hours)

Fourier transform and Fourier Integral, Gamma, Beta functions, error function
Vector differential calculus: vector and scalar functions and fields, Derivatives, Curves, tangents and arc length, gradient, divergence, curl

Module – III (15 Hours)

Vector integral calculus: Line Integrals, Green Theorem, Surface integrals, Gauss theorem and Stokes theorem

Text Book
    1. Advanced Engineering Mathematics by E. Kreyszig
                        Publisher: John Willey &
        Sons Inc- 8th Edition Chapter 5(5.1 to 5.7),
        Chapter 8(8.4, 8.5, 8.9 to 8.11)
        Chapter 9(9.1 to 9.9)
        Chapter 10(10.1 to 10.4, 10.8 to 10.10)

Reference Books:

    3. Higher Engineering Mathematics by B. V. Ramana
                        Publisher: TMH
    4. Mathematical Methods by Potter and Goldberg
                        Publisher: PHI