

Course: Engineering Mathematics II

Course Code: noc21-ma11

Session: 2020-21

Duration: 12 Week

Assessment procedures: Weekly Assignment (25%) + proctored certification Exam (75%)

Curriculum of the Course:

Week 1: Vector and scalar fields. Limit, continuity, differentiability of vector functions. Directional derivative, gradient, curl, divergence

Week 2 : Line and surface integrals, Green, Gauss and Stokes theorem.

Week 3 : Function of complex variables and their properties including continuity and differentiability. Analytic functions and CR equations. Line integrals in complex plane.

Week 4 : Cauchy's integral theorem, Power series, radius of convergence. Taylor's and Laurent's series, zeros and singularities, residue theorem.

Week 5 : Iterative method for solution of system of linear equations. Finite differences, interpolation.

Week 6 : Numerical integration. Solution of algebraic and transcendental equations.

Week 7 : Laplace transform and its properties. Laplace Transform of special function.

Week 8 : Convolution theorem. Evaluation of integrals by Laplace Transform. Solution of initial and boundary value problems.

Week 9 : Fourier series & its convergence

Week 10 : Fourier integral representation

Week 11 : Fourier sine and cosine transforms. Fourier Transform. Properties of Fourier Transform.

Week 12 : Applications of Fourier series to boundary value problems.

List of students enrolled

S.No	Student Name
1	VISHNU GUPTA
2	Harsh Modi
3	Kalpna Modi
4	LALIT MEENA
5	MANALI SHARMA
6	MadhavMittal

7	Nakul Singh Jadon
8	PRASHU JAIN
9	Priyanka soni
10	Ritik Verma
11	Lakshit Sharma
12	Rupesh kumar yadav
13	Sahil Tilwani
14	Sanskar Rana
15	Saurabh Singh Jat
16	Shruti Chauhan
17	Siddharth Darji
18	Sneha khandelwal
19	Shivam sharma