

ENS 525
Mathematical Methods for Scientists and Engineers I

Textbook: Advanced Mathematical Methods in Science and Engineering by S. I Hayek

Mode of Teaching: Online (till April 2023)

Exams: Midterm 1: %25
Midterm 2: %30
Final Exam: %45

Content:

- I. Ordinary Differential Equations
 - a) Basics
 - b) Series Solution
 - c) Special Functions
 - d) Eigen-value and Boundary-value Problems

- II. Complex Analysis
 - a) Complex Variables
 - b) Complex Functions
 - c) Complex Calculus

- III. Integral Transforms
 - a) Fourier Transform
 - b) Laplace Transform