Faculty of Engineering & Technology

Transformation and Numerical Analysis (Math 4)

Information :

Course Code : MTH 212	**Level :** Undergraduate	**Course Hours :** 3.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Lecturer	Hany Abd El Ghaffar Abd El Aty El Deeb	1
Assistant Lecturer	Toba Mohamed Mohamed Soliman	

Description :

Laplace transformation: definitions, properties and theorems, Inverse transform, Solution of ordinary differential and integral equations by Laplace transform, Heaviside function and related theorems, Periodic functions and Dirac delta functions, Applications, Vector analysis: scalar and vector fields, Directional derivative, gradient, divergence and curl, Gauss's and Stokes's theorems, Fourier series: usual and arbitrary period, Fourier series of odd and even functions, Definitions and properties of Fourier transform with applications, Partial differential equations: definitions, types-D'fflambert solution of wave problem, Separation of variables for heat, wave, Laplace's equations in different systems of coordinates.