

Linear Algebra with Differential Equations (MATH-120)

Credit Hours: 3

Course Pre-Requisites: Calculus 1 (MATH 101)

Instructor: Amer Rasheed

Schedule: Monday to Friday (3.30 PM – 5.30 PM)

Course Description: This is the first course of a two-semester sequence in linear algebra. This course gives a working knowledge of: systems of linear equations, matrix algebra, determinants, eigenvectors and eigenvalues, finite-dimensional vector spaces, matrix representations of linear transformations, matrix diagonalization, changes of basis, Separable and first-order linear equations with applications, 2nd order linear equations with constant coefficients, method of undetermined coefficients, Systems of linear ODE's with constant coefficients, Solution by eigenvalue/eigenvectors, Non homogeneous linear system