MAT-3 — LINEAR ALGEBRA

About This Course

Transfer: UC, CSU
C-ID: (C-ID:MATH 250)
3.00 units
Prerequisite: MAT-1B.

Description: Examines elementary vector space concepts and geometric interpretations and develops the techniques and theory to solve and classify systems of linear equations. Solution techniques include Gaussian and Gauss-Jordan elimination, Cramer's rule and inverse matrices. Investigates the properties of vectors in two, three and finite dimensions, leading to the notion of an abstract vector space. Vector space and matrix theory are presented including topics such as determinants, linear independence, bases and dimension of a vector space, linear transformations and their matrix representations, inner products, norms, orthogonality, eigenvalues, eigenvectors, and eigenspaces. Selected applications of linear algebra are included. 54 hours lecture. (Letter Grade, or Pass/No Pass option)