

ENGR2300 - Linear Algebra for Engineers

[ENGR 2300](#) Linear Algebra for Engineers (3 semester credit hours) Matrices, vectors, linear systems of equations, Gauss-Jordan elimination, LU factorization and rank. Vector spaces, linear dependence/independence, basis, and change of basis. Linear transformations and matrix representation; similarity, scalar products, orthogonality, Gram-Schmidt procedures, and QR factorization. Determinants: eigenvalues, eigenvectors, and diagonalization. Introduction to problem solving using MATLAB. This course includes a required laboratory. Credit cannot be received for both courses, [ENGR 2300](#) and [MATH 2418](#). Prerequisite or Corequisite: [MATH 2414](#) or [MATH 2419](#). (2-1) S