Course Number MTH-140-01 **Course Description** Linear algebra has an enormous number of applications to the sciences and engineering. This course will cover the basics of linear algebra in Euclidean n-space, including linear systems, linear transformations, determinants, eigenvalues and eigenvectors, orthogonality, and the singular value decomposition. An emphasis will be placed on applications, chosen from least-squares fitting, linear programming, image compression, Markov chains and discrete dynamical systems, computer graphics, principal component analysis, the Google PageRank algorithm, and others. Computer software such as MATLAB or Mathematica will be used in this course to perform numerical calculations. Academic Term 22/FA Instructor Gasparovic, Ellen Location & Meeting Time T/TH 10:55AM-12:40PM LEC Credits 1.00 Capacity 25 **Total Students** 0 Academic Department **Mathematics** Field Of Study Mathematics (MTH)