Linear Algebra II

This module is a mixture of abstract theory, with rigorous proofs, and concrete calculations with matrices. The abstract component builds on the theory of vector spaces and linear maps to construct the theory of bilinear forms (linear functions of two variables), dual spaces (which map the original space to the underlying field) and determinants. The concrete applications involve ways to reduce a matrix of some specific type (such as symmetric or skew-symmetric) to as near diagonal form as possible.

@book{Axler_2015, address={Cham}, edition={3rd ed., [rev. and enl.]}, title={Linear algebra done right}, volume={Undergraduate texts in mathematics}, publisher={Springer}, author={Axler, Sheldon}, year={2015} }