

MAT 4190 - Advanced Linear Algebra (4)

The fields of real and complex numbers, vector spaces over general fields, subspaces, span and linear independence, bases and dimension, existence of bases, linear coordinates, linear transformations and matrix representations, isomorphism and change of basis, diagonalizability, inner product spaces, the Gram-Schmidt process, unitary operators and orthogonality, normal operators, self-adjoint operators, and the spectral theorem, Jordan canonical form.

Prerequisite(s): MAT 208 or MAT 2250; and MAT 310 or MAT 3100.

Component(s): Lecture

Grading Basis: Graded Only

Repeat for Credit: May be taken only once

Course Category: Major Course