

Mathematics: Linear Algebra

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Syllabus

Vector spaces.

Linear combination. Linearly dependent and independent vectors.

Basis and dimension.

Linear applications. Kernel and image of a linear application. Matrix representation.

Eigenvalues and eigenvectors.

Quadratic forms.

References

C.P. Simon and L. Blume, *Mathematics for Economists*. W.W. Norton & Company, 1994.

Serge Lang, *Introduction to Linear Algebra*, Springer, 1997.