

- [Exams](#)
- [Literature](#)
- [Summary](#)

Description

This course introduces the fundamental concepts of linear algebra, and examines them from both an algebraic and a geometric point of view. Key concepts in the course are: vectors, matrices, systems of linear equations, eigenvalues, eigenvectors, linear transformations, orthogonality.

Knowledge and understanding

Students will obtain the insight that various seemingly different questions all boil down to the same mathematical problem of solving a system of equations. Students will learn to look at the same problem from different angles and they will learn to switch their point of view (from geometric to algebraic and vice versa).

Linear algebra is fundamental for calculations in mathematics, engineering and computer science.

Making Judgements

Communication

Students will learn to understand and write the language of linear algebra.

Skills

Students will be able to solve small problems with pen and paper and they will be able to use the Matlab package to solve large-scale problems.