

COURSE DETAIL

MATRIX THEORY

Country

Sweden

Host Institution

Lund University

Program(s)

Lund University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics

UCEAP Course Number

146

UCEAP Course Suffix**UCEAP Official Title**

MATRIX THEORY

UCEAP Transcript Title

MATRIX THEORY

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

The major aim of the course is to convey knowledge about and familiarity with the use of concepts and methods from matrix theory and linear algebra, which are important in applications within many subjects in technology, science, and economy. In addition, the course should develop the student's ability in general to assimilate and communicate mathematical theory and to solve problems. Furthermore, the course should strengthen the student's theoretical ability in mathematical programming. The course covers: matrices and determinants; linear spaces; Spectral theory; The Jordan normal form; matrix factorizations; matrix polynomials and matrix functions; norms; scalar products; singular values; normal matrices; Quadratic and Hermitian forms; The Least Squares method and pseudo inverses.

Language(s) of Instruction

English

Host Institution Course Number

MATC70

Host Institution Course Title

MATRIX THEORY

Host Institution Campus

Science

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mathematics

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