

COURSE DETAIL

NUMERICAL ANALYSIS: NUMERICAL LINEAR ALGEBRA

Country

Sweden

Host Institution

Lund University

Program(s)

Lund University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics

UCEAP Course Number

142

UCEAP Course Suffix**UCEAP Official Title**

NUMERICAL ANALYSIS: NUMERICAL LINEAR ALGEBRA

UCEAP Transcript Title

NUM LINEAR ALGEBRA

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course provides an introduction to numerical linear algebra, including methods and principles for solving fundamental problems in linear algebra. The course covers matrix and vector norms, orthogonalization, projection, matrix factorizations, direct and iterative solvers, condition numbers, stability of a method, and complexity of an algorithm. Students learn to solve problems and are trained in implementing numerical methods in code. This course prepares students for further studies in numerical analysis, statistics, computer science, and image analysis.

Language(s) of Instruction

English

Host Institution Course Number

NUMB11

Host Institution Course Title

NUMERICAL ANALYSIS: NUMERICAL LINEAR ALGEBRA

Host Institution Course Details

<https://www.lunduniversity.lu.se/lubas/i-uoh-lu-NUMB11>

Host Institution Campus

Lund

Host Institution Faculty

Science/Engineering

Host Institution Degree

Host Institution Department

Mathematics/Engineering

Course Last Reviewed

2021-2022

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