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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