COURSE DETAIL

NUMERICAL ANALYSIS
Country China
Host Institution Tsinghua University
Program(s) Tsinghua University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Mathematics
UCEAP Course Number 154
UCEAP Course Suffix
UCEAP Official Title NUMERICAL ANALYSIS
UCEAP Transcript Title NUMERICAL ANALYSIS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course offers a comprehensive exploration of scientific computing, covering essential topics crucial for solving mathematical problems encountered in scientific and engineering fields. Beginning with an introduction to the fundamentals of numerical methods, including error analysis and computational complexity, students explore solving systems of linear equations using various techniques such as direct and iterative methods. The course further aims to eigenvalue computation methods and approaches for solving nonlinear equations. Interpolation techniques for approximating functions from discrete data points are also covered in detail. Through hands-on exercises and computational assignments, students develop practical skills in numerical analysis, enabling them to tackle diverse mathematical challenges in scientific computing effectively.

Language(s) of Instruction
English

Host Institution Course Number
60420254

Host Institution Course Title
NUMERICAL ANALYSIS

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed
2023-2024

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