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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