COURSE DETAIL

ANALYSIS I AND LINEAR ALGEBRA
Country Germany
Host Institution Technical University Berlin
Program(s) Technical University Berlin
UCEAP Course Level Lower Division
UCEAP Subject Area(s) Mathematics Engineering
UCEAP Course Number 51
UCEAP Course Suffix
UCEAP Official Title ANALYSIS I AND LINEAR ALGEBRA
UCEAP Transcript Title ANALYS I & LIN ALG
UCEAP Quarter Units 14.00
UCEAP Semester Units 9.30

Course Description

This course covers the following topics: sets and mappings, complete induction; number representations, real numbers, complex numbers; number sequences, convergence, infinite series, power series, limits and continuity of functions; elementary rational and transcendental functions; differentiation, extreme values, mean value theorem and consequences; higher derivatives, Taylor polynomial and series; applications of differentiation; definite and indefinite integral, integration of rational and complex functions, improper integrals, Fourier series; matrices, linear systems of equations, Gauss algorithm; vectors and vector spaces; linear mappings; dimension and linear independence; matrix algebra; vector geometry; determinants, eigenvalues; linear differential equations.

Language(s) of Instruction
German

Host Institution Course Number
3236 L 002/7

Host Institution Course Title
ANALYSIS I UND LINEARE ALGEBRA FÜR INGENIEURWISSENSCHAFTEN

Host Institution Course Details
https://moseskonto.tu-berlin.de/moses/modultransfersystem/bolognamodule/beschre...

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Institut für Mathematik

Course Last Reviewed

2023-2024

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