

COURSE DETAIL

FUNCTIONAL ANALYSIS

Country

Denmark

Host Institution

University of Copenhagen

Program(s)

University of Copenhagen

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics

UCEAP Course Number

144

UCEAP Course Suffix**UCEAP Official Title**

FUNCTIONAL ANALYSIS

UCEAP Transcript Title

FUNCTIONAL ANALYSIS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course covers a number of fundamental topics within the area of Functional Analysis. These topics include: Banach spaces, the Hahn-Banach theorem, including its versions as separation theorem, weak and weak* topologies, the Banach-Alaoglu theorem, fundamental results connected to the Baire Category theory (the open mapping theorem, the closed graph theorem and the Uniform Boundedness Principle), as well as and convexity topics, including the Krein-Milman theorem and the Markov-Kakutani fixed point theorem; Operators on Hilbert spaces, Spectral theorem for self-adjoint compact operators; Fourier transform on \mathbb{R}^n and the Plancherel Theorem; Radon measures and the Riesz representation theorem for positive linear functionals.

Language(s) of Instruction

English

Host Institution Course Number

NMAK10008U

Host Institution Course Title

FUNCTIONAL ANALYSIS

Host Institution Course Details

Host Institution Campus

Science

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mathematical Sciences

Course Last Reviewed

[Print](#)