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 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