

## APPLIED MATHEMATICS 617 "ANALYSIS IV"

**Calendar Description:** H(3-0)  
Analysis in abstract spaces. Function spaces.

**Prerequisite:** Pure Mathematics 545.

### *Syllabus*

#### **Topics**

$L^p$ -spaces and  $L^p$  spaces

Normed linear spaces, Hilbert spaces

Linear Functionals, Hahn-Banach Theorem

Operators, Spectra

Operators on Finite Dimensional Spaces

Spectral Theory in Infinite Dimensional Spaces

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