

# MATH-232: Functional Analysis II

A continuation of MATH-231. This will be a basic Functional Analysis course covering the three major theorems, the Hahn-Banach theorem, Uniform boundedness principle and the Open mapping-Closed Graph theorem. We shall also do Fredholm theory as it is useful to people doing PDE and also the Spectral theory of self-adjoint and bounded operators. The course will emphasize applications of Functional Analysis to PDE via illustrations in the use of Sobolev spaces.

**Credits:** 3

**Program:** Mathematics