The course will cover the basics of Functional Analysis at the graduate level. The main emphasis will be on the spectral theory and its applications. Classical topics, such as the Hahn-Banach Theorem and separation of convex sets by linear functionals, the Open Mapping Theorem, etc. will of course also be covered. Although no particular textbook will be completely followed, many of the topics are covered in the following books (which will be placed on reserve in the library):

Y. Eidelman, V. Milman, A. Tsolomitis: Functional Analysis
W. Rudin: Functional Analysis
T. Kato: Perturbation Theory for Linear Operators
F. Riesz, B. Nagy: Functional Analysis
K.Yosida: Functional Analysis

There will be three homework assignments during the semester. The grade for the course will be based on the assignments.