Course Description. We are going to learn about such concepts as topological vector spaces, locally convex, locally bounded, Frechet-, normed-, Banach-, and Hilbert-spaces, famous and useful theorems like the Hahn-Banach Theorem, the Open Mapping Theorem, the Closed Graph Theorem, the Schauder basis, Fourier expansion in Hilbert spaces, projectors, projector-valued measures, the Spectral Theorem, etc.

Textbook. Walter Rudin: Functional Analysis. You need not purchase it: an electronic copy will be made available to you.

Homework will be assigned on a weekly basis.

Prerequisite. Admission to the graduate program, or by my permission.

Assessment Procedures. Student achievement will be assessed by any or all of several measures: Regularly assigned homework problems, two midterm tests, and a comprehensive final exam. A numerical score is given on each of them.

Grading Policy. Student achievement on the items assessed will be used to determine the final grade. The percentage of the final numerical grade assigned to each item is as follows: final exam: 40%; two midterm tests: 20% each; homework 20%. At the end I will “reasonably” curve the overall numerical scores.