



Ph.D. Program in Mathematics
Course Description - Spring 2019

Course Title: Topics in Functional Analysis

Course #: 85600

Time and Location: Friday, NOTE TIME CHANGE FROM 2-4PM TO 11:45AM-1:45PM effective 2/4/2019

Instructor Name: Radoslaw Wojciechowski

Contact Information: rwojciechowski@gc.cuny.edu

Pre-Requisites: Basic measure theory, topology and operator theory

Office Hours: Friday, 1:00-2:00

Description:

This will be a one semester topics course in functional analysis. The goal will be to discuss C^* -algebras, the functional calculus, spectral theory and Dirichlet forms. Forms and Laplacians on weighted graphs will serve as a main example to illustrate the theory. In particular, we will look at the bottom of the spectrum of the Laplacian on graphs and how it relates to some geometric properties. The prerequisites consist of the basics of measure theory, topology and operator theory. The Functional Analysis course offered in the fall is not a prerequisite as the necessary material will be reviewed.