FUNCTIONAL ANALYSIS

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General Program:

(a) Introduction (covering chapters 1-4, assuming much is known in advance)
(b) Fundamental Theorems of Functional Analysis (Chapter 9)
(c) Fredholm Theory for compact operators (Chapter 5)
(d) Specrtal Theory of Self adjoint operators (Chapter 6)
(e) Functions of operators and Spectral decomposition (Chapter 7)
If time permits:
(f) Banach Algebras (Chapter 10).
(g) Introduction to local theory of normed spaces (from the book of Milman and Schechtman "Asymptotic theory of finite dimensional normed spaces")

The ordering may also be (closer to the way the book is written): (a) (c) (d) (e) (b) (f)

The question whether we will get to (f) and (g) relies mainly on whether most of (a) can be assumed to be known or not.

Lectures in English

Testbook : Eidelman, Milman and Tsolomitis : "Functional Analysis: An Introduction".