

MAT 702 Spring 2010

3:45-5:05 MW

Professor: Andrew Vogel PB 229F, 3-1584, alvogel@syr.edu, Office hours: TuTh, 10:00-11:00pm, W, 9:00-10:00pm, and by appointment.

Text Book: Conway, John B. *A course in functional analysis*. Second edition. Graduate Texts in Mathematics, 96. Springer-Verlag, New York, 1990

Other books on functional analysis you may consider looking at:

· Reed, Michael; Simon, Barry *Methods of modern mathematical physics. I. Functional analysis*. Academic Press, New York-London, 1972.

· Yosida, Kosaku *Functional analysis*. Reprint of the sixth (1980) edition. Classics in Mathematics. Springer-Verlag, Berlin, 1995

· Taylor, Angus E.; Lay, David C. *Introduction to functional analysis*. Reprint of the second edition. Robert E. Krieger Publishing Co., Inc., Melbourne, FL, 1986.

· Dunford, Nelson; Schwartz, Jacob T. *Linear operators*. Part I. General theory. With the assistance of William G. Bade and Robert G. Bartle. Reprint of the 1958 original. Wiley Classics Library. A Wiley-Interscience Publication. John Wiley & Sons, Inc., New York, 1988 (there are also two more parts).

Course Content: Chapters 1-6 with some omissions. This includes Hilbert Spaces and operators on Hilbert spaces. Banach Spaces and operators on Banach spaces. Weak Topologies.

Grading: Written homework from each section covered will determine your grade. Consulting with other students on these problems is encouraged, **but** the work you turn in for grading should be your own, in your own words.

Students with Disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations. Making arrangements with ODS takes time. Do not wait until just before the first test.

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