

Functional Analysis I
MTH 617 (14539)
MWF 12:45–1:35, Rm: NH 346

Course Information

Instructor: Prof. Gerardo Lafferriere
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Office Hours: Monday, Wednesday, Friday 11:30–12:30 (or by arrangement)

Syllabus: Functional Analysis is the branch of mathematics studying topological vector spaces and the linear continuous mappings between them. The name reflects the fact that the original, and most important, examples are spaces of functions with various integrability and differentiability properties. Functional analysis is an important and very large field of study in both pure and applied mathematics.

Background: The recommended prerequisite is Mth 412/512. However, students with other equivalent backgrounds are welcome. Generally, you need some maturity in real analysis at the undergraduate senior level.

Textbook: We will use the text *A Course in Functional Analysis*, Second Edition, by John B. Conway, Springer-Verlag 1990. This text will also serve for the second and third terms of the course. As a rule of thumb we will cover approximately one section per class meeting, but we will not cover every section. Also, specially in later, terms material from other sources may be substituted based on student interest. Additional information will be provide in class as the course progresses.

Grading: will be based on regular homework assignments ($\approx 30\%$), two midterm exams ($\approx 40\%$), and a final exam ($\approx 30\%$). While you are encouraged to discuss general issues with your classmates the material turned in for grading should reflect individual work.

Tests: All exams will be in class and closed-book. The final exam will be on **Monday, Dec. 7th from 12:30 to 14:20.**

Website Most of the handouts will be posted on the website as well. The site will contain other useful links and last minute announcements.

Other: If you have a disability and are in need of academic accommodations, please notify the instructor immediately to arrange needed support.

H1N1 Flu: Please visit the PSU Center for Health & Counseling website (<http://www.shac.pdx.edu/>) for information on the Flu.