

References

The necessary text for the course is

- Stein and Shakarchi, *Real analysis: measure theory, integration, & Hilbert spaces*, Vol. III of the Princeton Lectures in Analysis.

We will focus on chapters 4-6. We will also cover some material on Banach spaces from chapter 1 of

- Stein and Shakarchi, *Introduction to Further Topics in Analysis*, Vol. IV of the Princeton Lectures in Analysis.

Further reading, mostly beyond the actual scope of this course but hopefully still helpful and interesting, include:

- Tao, *An Introduction to Measure Theory* (available online).
- Bressan, *Lecture Notes on Functional Analysis: With Applications to Linear Partial Differential Equations*.
- Conway, *A course on functional analysis*.
- Halmos, *A Hilbert Space Problem Book*.
- Kowalski, *Spectral theory in Hilbert spaces* (available online).
- Helmberg, *Introduction to Spectral Theory in Hilbert Space*.
- Pedersen, *Analysis now*.

These are all readily available in the library, Amazon, or online.