

Mat 571 — Real Analysis II — Spring 2024

Line No.	11443
Time	MW 10:30-11:45 AM
Room	WXLR A307
Instructor	Jack Spielberg
Office	PSA-747
Office Hours	TBA, and by appointment.
e-mail	jack.spielberg@asu.edu
Text	Folland, <i>Real Analysis, 2nd edition</i> , Wiley 1999

Course Description

This is the second half of a year-long sequence in real analysis. We will continue the study of measure theory, including modes of convergence, product measures, the Radon-Nikodym theorem and decompositions of measures, classical results about functions of bounded variation and absolutely continuous functions, L^p spaces and duality, Radon measures and the dual of $C_0(X)$, and an introduction to Fourier analysis on \mathbb{R} .

The text for the course is Folland's *Real Analysis*.

The course grade will be based on weekly problem sets, a midterm exam, and a final exam. However, students should take the point of view that working (and struggling with) the homework is the most important part of the course.

Students not currently in MAT 570 may enroll, but should have taken the equivalent of MAT 570.

Questions about the course are welcome, and should be addressed to the instructor.