Math 2304    Spring 2011
Analysis IV

MWF 2:00pm – 2:50pm;    524 Thackeray

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Analysis 4 is a basic course in Harmonic Analysis on the Euclidean space. The following standard topics will be covered: Fourier transform, tempered distributions, the Marcinkiewicz and the Riesz-Thorin interpolation theorems, maximal functions, singular integrals, Hilbert transform, Riesz transforms, Calderon-Zygmind theory, Littlewood-Paley theory, BMO Spaces, and other related topics. We will also cover many applications of harmonic analysis to the theory of PDEs.

Textbook
Singular integrals and differentiability properties of functions, by Elias M. Stein

Grading Policy
There will be weekly homework assignments, and one take home final.

Homework
Weekly homework assignments will be posted on the course webpage.