

# MATH 504 - Analysis in Euclidean Space

Instructor: Robert Vaughan, Spring 2009

**Textbook:** H. Dym and H. P. McKean, *Fourier Series and Integrals*, Academic Press.

This is essentially a course on **Fourier Analysis**.

The main topics covered will be: The Fourier transform in  $\mathbf{L}^1$  and in  $\mathbf{L}^2$  and applications. Interpolation of operators, Riesz and Marcinkiewics theorems, singular integral operators.

Prerequisite: MATH 501