

MAP 4413: Fourier Series and Transforms

Fall 2022

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Class meets MWF 10:40-11:30 in Little 221

Office hours: Mondays and Wednesdays 1:00-1:45, Mondays 3:00-4:00,
or by appointment.

Textbook

Fourier Analysis and Its Applications by Gerald Folland

Syllabus

This course is an introduction to Fourier series, Fourier transforms, and their applications. Topics to be covered include Fourier series, the Fourier integral, the discrete Fourier transform, and applications to solving differential equations.

Homework

I will assign homework problems each week to be collected and graded. Solutions to these problems will be distributed after the homework has been collected. Late homework will not be accepted. I will also assign some homework problems which will not be collected or graded. You should certainly do these problems as well, since exam questions may be based on them.

Exams

Friday, September 23, in class

Friday, October 28, in class

Wednesday, December 14, 3:00-5:00 (final)

Grading

The homework will count 20%, the in-class exams will count 20% each, and the final will count 40%. Your grade will be determined by the following scale:

$90 \leq x \leq 100$: A	$85 \leq x < 90$: A-	$80 \leq x < 85$: B+
$75 \leq x < 80$: B	$70 \leq x < 75$: B-	$65 \leq x < 70$: C+
$60 \leq x < 65$: C	$55 \leq x < 60$: C-	$50 \leq x < 55$: D+
$45 \leq x < 50$: D	$40 \leq x < 45$: D-	$0 \leq x < 40$: E