

**MATH 110.443 FALL 2005: FOURIER ANALYSIS
SYLLABUS**

Meeting time: MTW 12-12:50, Maryland 114

First meeting: Monday, September 12

Instructor: Florin Spinu. e-mail: fspinu@math.jhu.edu

Office hours (walk-in): MT 2:00 - 3:00 pm, Krieger 312 or by appointment.

Textbook

Elias M. Stein and Rami Shakarchi, *Fourier Analysis: An Introduction*, Princeton University Press (2003), chapters 1-5.

Course goals: basic facts about Fourier series and the Fourier transform, with an emphasis on specific examples and applications in differential equations and number theory. Keywords: wave & heat equations, Fourier series, Poisson kernel, Fourier transform & inversion, Parseval identity & Plancherel formula, Poisson summation formula, theta functions.

Homework. Assigned daily and collected on Monday the next week, at the beginning of the lecture. No late homework accepted. Study groups are encouraged but the homework has to be written down independently.

Exams

Two midterm exams: Oct 25, Nov 22 (Tuesday, in class).

Final exam: TBA.

Exam policy. Exams are closed book, closed notes. There will be no make-up exams. If an exam is missed with a valid excuse, the grade for that exam will be a weighted average of the grades obtained on subsequent exams. The grade for an unexcused exam will be a zero. The Academic Advising Office provides letters for excused absences. If you have a conflict with an exam or need special arrangements, you must notify the instructor in writing at least two weeks in advance.

Attendance: lecture (section) attendance is mandatory.

Grading Policy: Homework: 25%, Midterm Exams: $2 \times 20\%$, Final 35%.

Ethics Statement. The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty, and unfair competition.

Report any violations you witness to the instructor. You may consult the associate dean of students and/or the chairman of the Ethics Board beforehand. See the guide on "Academic Ethics for Undergraduates" and the Ethics Board website (<http://ethics.jhu.edu>) for more information.