

MATH245C
SPRING 2026

WILFRID GANGBO

1. This course meets for lectures on Mondays, Wednesdays and Fridays from 1:00 to 1:50 pm in MS 6201. The course is part C of the Real Analysis Series. We will start discussing distribution functions, weak L^p -spaces, and the change of variables for the Lebesgue integrals. Then we will cover the Riesz representation theorem for $C(X)$, the smoothing of functions, and the approximate identities. We will cover topics on trigonometric series, Fourier transform, Parseval's inequality and Plancherel's theorem.

2. My office is MS 7945, and office hours will be on Mondays, Wednesdays and Fridays from 2:05 to 3:00 pm, or by appointment. I may be reached by email at wgangbo@math.ucla.edu.

3. **Homework.** Homework will be assigned and collected roughly every other week in class. It will be graded and promptly returned to you, usually the following week. The assignments will be announced in class well in advance, and posted on the course website. Your score on each homework assignment will be based on a few randomly chosen problems. **Late homework will not be accepted**, but your lowest homework score will be dropped. The next HW problems can be found at my webpage accessible from the department website. You could also go to <http://www.math.ucla.edu>

click on

“academic” then on “Math 245C”

4. **Grading.** Your average score for this class will be computed based on your three best homework scores.

6. **Academic integrity.** Please, review the regulations at the following website:
<http://www.deanofstudents.ucla.edu/Student-Conduct>

7. **Notes.** You are not allowed to use cell phone in the classroom. Your homework should be your own work. You are allow to discuss with your classmates but you are not allowed to copy from from each other.