

MATH 245B, WINTER 2026

WILFRID GANGBO

1. This course meets for lectures on MWFs from 11:00am to 11:50am in MS 5203. We will cover material from various books, and cover topics such as Semi-algebra, the Lebesgue–Stieltjes measures, Covering theorems, Differentiation theorem, the Riesz representation. We will also cover topics on Banach spaces, the Weak and Weak* topologies, Ascoli–Arzela theorem and Hilbert spaces.

2. My office is MS 7945, and my office hours will be MWs from 1:30pm to 2:30pm. I may be reached by email at wgangbo@math.ucla.edu but you can also meet me by appointment.

3. **Homework.** Homework will be assigned and collected every other week. 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 one randomly chosen problems. You will be allowed to drop one homework. **Late homework will not be accepted.** The HW problems can be found at my website

<http://www.math.ucla.edu/~wgangbo/academic/math245B/>

4. **Grading.** Your final average in this class will be computed using the following scheme:

Homework: 45 %
Final Exam: 55 %

The final letter grades will be based on the overall average at the end of the quarter, according to the following scheme: 90% or above – at least an A, 80 % or above – at least a B, 70 % or above – at least a C, 60 % or above – at least a D, below 30 % – F. I may "curve up", but scores below 30 % will not be curved up to pass.

5. **Exam.** Your final exam will be on Monday, March 16, 2026 from 8:00 am to 11:00 am. During the final exam, you may not use notes, calculators, cell phones, or anything other than paper and pen/pencil. **You must take the final exam in order to pass the class.** Make-ups for the final exam are permitted only under exceptional circumstances, as outlined in the UCLA student handbook. Please bring a photo ID to every exam.

7. **Academic integrity.** See <http://www.deanofstudents.ucla.edu/Student-Conduct>

8. **Notes.** You are not allowed to use cell phone in the classroom. Your homework should be your own work and you are not allowed to copy from your classmate.