131BH, WINTER 2025

WILFRID GANGBO

1. Mathematics 131BH meets MWF from 11:00 to 11:50 am in BUNCHE 3178. This is the second quarter of a sequence on Analysis, completing the honors sequence as well as the regular Math 131AB. We will use the textbook by Maxwell Rosenlicht "Introduction to Analysis" but there are many others analysis textbooks available to you, which you could rely on, such as the book by W. Rudin "Principles of Mathematical Analysis, 3rd Ed, McGraw–Hill Higher Education" or the textbook by E. Copson "Metric Spaces, Cambridge University Press". This course covers rigorous treatment of the foundations of real analysis, including sequences and series of functions; power series, and functions defined by them; differential calculus of several variables, including the implicit and inverse function theorems, the Riemann integration. This course is about reasoning processes as well as Analysis. It is therefore important that all exams be written up with an eye to presenting a clear cogent as well as correct and concise argument. Elegance and brevity, when consistent with accuracy, are virtues in any argument.

2. **Office hours.** My office is 7945 MS and my office hours will be MWF from 1:10 to 2:00 pm, or by appointment. I may be reached by email at wgangbo@math.ucla.edu or by phone at (310) 825-4245.

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 and only those marked $*$, will be collected, and a subset of them will be graded. **Late homework will not be accepted**, but your lowest homework score will be dropped. Your homework should be your own work and you are not allowed to copy from your classmate. The next HW problems can be found at

http://www.math.ucla.edu/ ˜ wgangbo/academic/math131BH/

4. **Grading.** Your final average in this class will be computed as the maximum of the following schemes:

Scheme 1:	Scheme 2:
Homework: 20 %	Homework: 35 %
Midterm: 35 %	
Final Exam: 45 %	Final Exam: 65 %

5. **Exam.** During the exams, you may not use notes, calculators, cell phones, or anything other than paper and pen/pencil. A sufficient amount of paper will be provided for you. **There will be no make–up for missed midterm**. If you miss the midterm for a legitimate, documented reason, your grade will be computed using the second grading scheme above. **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. The exams are scheduled for the following dates:

(i) The date for the midterm is Friday 14 February 2025, 11:00am - 11:50am

(ii) The date for your final exam is Friday March 21, 2025, 11:30 am - 2:30 pm.

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

Notes. You are not allowed to use cell phone in the classroom.

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