California State University, Northridge

MATH 450A: Advanced Calculus I, Fall 2019

Class Number: 17476; Schedule: TTh 5:00–6:15pm in CR5123.

Instructor: Dr. Vladislav Panferov, office SN 131, phone (818)677-2326
Email: `vladislav.panferov@csun.edu`
Course webpage: `www.csun.edu/~panferov/math450a/`
Office hours: (tentative: check webpage for updates!) Tue, Thu 2:30-3:30pm, Wed 1-2pm or by appointment (email).

Course description: "Single-variable calculus with proofs". The goal of the course is to provide a mathematically rigorous base for the fundamental facts of the calculus of single variable. Topics include the real number system, continuous functions, differentiation, Riemann integration for functions of one real variable, and series of numbers and functions.

Text: M. H. Protter, C. B. Morrey, A First Course in Real Analysis, 2nd ed., Springer 1991. We plan to cover most of Chapters 1-5, and 9.1–9.4.

Recommended references: J. Kirkwood, An Introduction to Analysis, Waveland Press, 2002; Wade, An Introduction to Analysis, 4th ed. Pearson 2017; more advanced: R. Courant, F. John, Introduction to Calculus and Analysis, Vol. I, Springer 1989; V. A. Zorich, Mathematical Analysis, Vol. I, Springer 2004.

Prerequisite: MATH 320 or equivalent coursework.

Grading: 25% quizzes, 40% two midterm tests, 35% final exam (cumulative). The percentages are generally translated into letter grades using the following scale: 90-100% A; 80-89% B, 70-79% C, 60-69% D, 0-59% F. There will be no "grading on the curve", however the cutoff numbers for the grades may be lowered, at instructor's discretion, based on the overall performance of the class.

Homework: Homework is the course's most essential component. You are expected to solve a large number of problems each week, the list of which will be announced in class or on the course webpage. Homework problems will not be graded; however, selected problems will be included in quizzes.

Tests/exams: There will be two in-class midterm exams, tentatively scheduled for September 26 and November 14 (Thursdays). This schedule may be adjusted, and the changes will be announced in class and on the course webpage. All exams will be closed books/notes.

Make-ups: There will be no make-ups for tests or quizzes, unless in truly exceptional cases, for a valid and well-documented reason. In such case arrangements for an alternate date and time should be made prior to the scheduled test date, if possible.

Final exam: On Tuesday, December 17, 2019, 5:30-7:30pm in CR 5123.

Electronic devices: Calculators, cellphones and other electronic devices are not allowed on the tests/quizzes, or the final exam. Your cellphone must be off or on silent during class; as a class policy, there is no texting or browsing the web during class.