MATH 350: Advanced Calculus I, Spring 2011

Class Number: 14523; Schedule: MW 5:00pm–6:15pm in CR5117.

Instructor: Dr. Vladislav Panferov, office SN 129, phone (818)677-2326

Email: `vladislav.panferov@csun.edu`

Course webpage: `www.csun.edu/~panferov/math350/`

Office hours: (tentative: check webpage for updates) Mon 12-2pm, Wed 6:30-7:30pm, 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, Taylor's formula and infinite series.

Text: M. H. Protter, C. B. Morrey, A First Course in Real Analysis, 2nd ed., Springer 1991. We plan to cover Chapters 1-5, and some of Chapters 6 and 9.

Recommended references: M. Spivak, Calculus, 4th ed., Publish or Perish, 2008 (or earlier editions); R. Courant, F. John, Introduction to Calculus and Analysis, Vol. I, Springer 1989; J. Kirkwood, An Introduction to Analysis, Waveland Press, 2002.

Prerequisite: MATH 320

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 March 2 and April 20 (Wednesdays). 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.

Advice on study: Everybody has their own learning styles, but practice shows that following some guidelines may increase your chances of doing well in this course. One good idea is to take detailed notes in class and review them at home, particularly as you attempt to solve problems. I welcome questions about assigned problems during my office hours and in class (if time permits) but do try to think about problems independently as well. Talking to your

classmates and joining a study group is another great way to advance your understanding and make sure you stay current with your class work.

Final exam: On Wednesday, May 18, 2011, 5:30–7:30pm in CR 5117.

Calculators: Calculators and other electronic devices are not allowed on the tests/quizzes, or the final exam.