

Math 512B. Concepts of Analysis

Spring 2008. Course No. 17630

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SN 430

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Class Meets: Mondays and Wednesdays, 5:30–6:45 pm, JR 217

Office Hours: Wednesdays 4:00–5:15 pm, and by appointment.

Course Web Page: <http://www.csun.edu/~ac53971/courses/math512B/>

Textbook: “Real Analysis and Applications” by F Morgan (for now)

About this class: This course is part of the curriculum of the Mathematics for Secondary Teaching Program. Its main goal is to give a rigorous introduction to real analysis. The topics to be covered are standard: real numbers; countable and uncountable sets; sequences and series; functions; continuity, differentiability and integration; sequences and series of functions; uniform convergence; and more.

We will also emphasize that students learn how to express mathematical ideas, and especially geometric, rigorously both orally and in written form.

Grading Policy. Your grade for this class will be based on homework, exams, and a math teaching project.

Homework: There will be weekly homework. Late homework is accepted; however, it will be penalized at a rate of 20% per day. There will also be a penalty for not turning in homework.

Exams: There will be two midterms and a final cumulative exam. These exams will be on the following dates

- First Midterm: Monday, March 3
- Second Midterm: Monday, April 21
- Final Exam: Monday, May 12, 5:30 pm —7:30pm

Project: Your math project for this course will consist on a portfolio containing at least 12 class activities based on the math discussed in 512A/B. Work on this portfolio will be concurrent with

the classes: you will prepare one activity each week and submit it together with homework assignments or as otherwise directed; I will comment on it and return to you; after that you can continue working on it, and resubmit. At the end of the semester you will present in class one of your activities. You must turn in your complete portfolio on the date of the final exam.

Grades: Your final score (out of 100 points) will be determined as follows

- 10% Homework
- 20% Each of the 2 midterms
- 20% Final Exam
- 30% Math Project

and your **final grade** will be determined as follows:

- A if total score is 85 points or more,
- B if total score is between 70 and 85 points,
- C if total score is between 55 and 70 points,
- D if total score is between 40 and 55 points,
- F if total score is below 40 points.

I will use +/- when assigning your final grade.

Cooperation: You are encouraged to collaborate with others in working on anything in this course, but what you put down in your assignments must be your own. If it is something that has emerged from work with other people, write down their names. Ideas and material that has come out from other people or other sources should be given proper attribution or reference.

Attendance and make-ups: Attendance for this class is mandatory. Any absence must be arranged in advance or justified with written notification.

There will be no make-up exams, except in cases of extreme emergencies or exceptional circumstances. You must notify me **before the exam** if you are going to miss it, and you must provide documentation justifying your request for a make-up. If the documentation is satisfactory, I **may** give the make-up. A make-up exam consists of a written part and an oral part.

Important: CSUN email accounts are the official means of communication of the California State University, Northridge. It is your responsibility as a student to activate and monitor your university email account. If you prefer an alternate email address, you can have your CSUN email forwarded to it.