Real Analysis 561B Fall 2004

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Meeting Times

MATH 561B meets M-W 5:30-6:45 in LA5-357.
Office hours (held in my office: FO3-218): Mondays and Wednesdays 4:30-5:30
Feel free to stop by, email or call to schedule an appointment or ask a question.

Description

L^p spaces of functions. Holder's inequality. Minkowski's inequality. Norm convergence, weak convergence and duality in L^p. Further topics from convergence of Fourier series, measure-theoretic probability, the Radon-Nikodym theorem; other topics depending on time and interest. Prerequisites: MATH 561A

Goals:

The goals of this course include deepening students' understanding of certain topics in real analysis and improving students' communication skills in mathematics, both written and oral.

Texts (required):

Measure and Integral: An Introduction to Real Analysis, Richard L. Wheeden and Antoni Zygmund, Dekker. This course will cover Chapters 8 and 10 of Wheeden and Zygmund, plus additional topics if time permits.

Assignments:

Grades will be based on written homework and oral presentations. Some weekly homework exercises will be assigned, to be written up by all students. Each student will be responsible for presenting his or her solution to at least one exercise in class during the semester. In addition, students will be asked to make short presentations of the material in the text.

Exams:

There will be two take-home exams. The tentative due dates for these exams are given below.

Midterm 1	October 15
Midterm 2	December 10 (last day of classes)

Grade Distributions:

Written Homework	25%
Oral Presentations	25%
Take Home Exam 1	25%
Take Home Exam 2	25%

Policies concerning withdrawal, make-up exams, and plagiarism can be found at this website: http://www.csulb.edu/~wziemer/syllabus_policy.html