Mathematics 202. Proving Things in Analysis   *Syllabus*

Professor Robert Strain, Fall 2010
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Class schedule: Lectures will be TR at 12.

Course Assistant: To be announced.

Brief course description: This is a freshmen seminar. From the registrar's course description: This course focuses on the creative side of mathematics, with an emphasis on discovery, reasoning, proofs and effective communication (...). Small class sizes permit an informal, discussion-type atmosphere, and often the entire class works together on a given problem. Homework is intended to be thought-provoking, rather than skill-sharpening.

Homework: Weekly.

Exams and Grade: Your final grade is based in large part on your level of participation in class and homework, as well as a final paper or exam.

Final Project: Subject to enrollment, there will be a final project due during the reading period on a subject of your choosing. In the event that enrollment just so happens to be very high, we will have a final exam.

Grading: Your final grade will be based on the homework (1/2) and the final project (1/2).

Reading: *(Please do not buy these other than for general interest, an official course text may be posted later on. But these should let you know what kinds of topics we will be talking about in this course.)*
D'Angelo & West, "Mathematical Thinking: Problem-Solving and Proofs," second edition, Prentice-Hall. Richard Courant and Herbert Robbins, "What is Mathematics?". Oxford University Press, 1941. Howard Eves and Carroll Newsom, "An Introduction to the Foundations and fundamental Concepts of Mathematics." Holt, Rinehart and Winston, 1965 (revised edition).