Principles of Analysis
(MATH 3083)
Fall 2005

Professor: Paul Bailey

Office: WIL 228

Office Hours: MTWRF 11 am to 12 noon; TR 1 pm to 2 pm

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Book: *Elementary Analysis: The Theory of Calculus*, by Kenneth A. Ross

Grading

Problems:	25%
Quizzes:	25%
Midterms:	25%
Final:	25%

Problem sets will be handed out periodically. You are welcome to work with each other on problem sets if you follow these rules: 1) anyone you discuss a problem with should be mentioned in your solution, and the originator of any idea should be so credited; 2) you must understand your solution, and write it in your *own words* (NO COPYING). Any violation of rules 1) and 2) is academic dishonesty.

There will be a quiz almost every Friday. There will be two midterm examinations. The final examination has been scheduled by the university for Wednesday, December 14.

Course Outline

Week	Beginning	Topic	Sections
Week 1	Aug 29	Logic and Set Theory	T1, T2
Week 2	Sep 5	Natural and Rational Numbers	1, 2
Week 3	Sep 12	Real Numbers	3, 4, 5
Week 4	Sep 19	Sequences	7, 8, 9
Week 5	Sep 26	Monotone Sequences	10
Week 6	Oct 3	Cauchy Sequences	10
Week 7	Oct 10	Subsequences	11
Week 8	Oct 17	Cardinality	T3
Week 9	Oct 24	Metric Spaces	T4, 13
Week 10	Oct 31	Compactness	T5, 13
Week 11	Nov 7	Connectedness	T6, 22
Week 12	Nov 14	Continuity	17, 18, 21
Week 13	Nov 28	Uniform Continuity	18, 21
Week 14	Nov 29	Function Spaces	T7
Week 15	Dec 5	Function Spaces	T7