Syllabus for

Math 405, Introduction to Combinatorics

Fall, 2000.

Instructor: Joachim Rosenthal
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Office hours: Tuesday 9:00–10:00, Friday 9:00–10:00, or by appointment.

Text: Richard Brualdi, *Introductory Combinatorics,* 3rd edition, Prentice Hall, 1999.

Course Content: The theory of combinatorics stands at the center of modern discrete mathematics. The text book is used at many universities for a one year introductory course in combinatorics. In this one semester course we will make a selection of topics and cover about half of the text book. Topics will include permutations and combinations, generating functions, identities involving binomial coefficients and recurrence relations. There will also be time to study such things as magic squares, the 4-color problem and problems related to coding theory.

Homework: Is important! Homework will be assigned about every 10 days and will not be accepted late. To do well you must keep up with the homework and review frequently. You are allowed and encouraged to discuss the problems, however, the work you hand in should be formulated by yourself only and should not be merely copied.

Examination Schedule: There will be 3 Tests and a final exam:
Test 1: Friday, September 22, 2000.
Test 2: Friday, October 27, 2000.
Test 3: Wednesday November 29, 2000.
Final: Tuesday, December 12, 4:15-6:15pm.

Grading Policy: Each of the 3 tests will be worth 100 points and the final exam will be worth 150 points. The homework will account for 50 points total. Letter grades will be based on total points out of the 500.