Mathematics 405: Introduction to Combinatorics

Spring Semester 1997

Computing Center and Mathematics Building, Room 328 MWF 12:50 – 1:40

Text: <u>Combinatorics: Topics, Techniques, Algorithms,</u> by Peter J. Cummins, Cambridge University Press, 1994.

Instructor: Professor S. Liedahl, CCMB 300A, 631-8698

Office Hours: MWF 9 – 10, and by appointment

## Exam Schedule

Exam I, Friday, February 14 Exam II, Wednesday, March 26 Final, Monday, May 5

## <u>Grades</u>

Weekly quizzes: 50 points total Weekly homework: 50 points total Exams I and II: 100 points each

Final: 150 points

Quizzes will be scored out of 10 points, homework assignments out of 20, and a letter grade will be given for each exam. The course grade will be based on the sum of these scores. Students may work in groups on homework assignments.

## **Topics**

We will follow the basic chapters on counting, partitions and permutations, recurrence relations (including Fibonacci numbers and Catalan numbers), and graph theory. In addition, we will give an expanded introduction to the topics of finite fields, finite geometries, and error-correcting codes.