

SYLLABUS FOR MA 340, COMBINATORICS

MA 340 Fall, 2002

Dates: 8/26/02 - 12/15/02

Time: 2:00 - 2:50 A.M., Monday, Tuesday, Wednesday, Thursday

Place: NSF 1302.

Instructor: Hal Martin, NSF 3011. Office phone: 227-1591.

Office Hours: To be announced.

Text: *Combinatorics and Graph Theory* by Harris, Hirst, and Mossinghoff.

Material to be Covered: All of Chapter 1 on Graph Theory and all of Chapter 2 on Combinatorics, except Section 2.5 on Polya's theory of counting, which is too advanced for this course.

Nature of the course: We will look at a lot of theory in this course as well as a lot of applications of the theory to concrete problems. Studying proofs of theorems is a good way to gain insight into mathematical structure, and this insight can then be used in solving concrete problems. The point is that theory and practice go hand in hand. If you feel overwhelmed in this course at times, then feel overwhelmed. If the theory is throwing you for a loop but you are being successful in knocking off most of the assigned problems, then be assured that you are doing well in the course. On the other hand, if you think that you understand the theory but can't solve many of the assigned problems, then think again. Graph Theory and Combinatorics have a lot of applications. They are also closely related and beautiful branches of mathematics, frequently taught together.

Exams: There will be a mid-term exam and a two hour final during exam week.

Problems: Many problems will be assigned, collected, and graded. The assigned problems constitute a large part of the course grade.

Attendance: Strongly recommended, especially if you are lost. If you stop coming to class you will definitely be lost.

Grading: Mid-term, 20%. Final, 40%. Problems, 40%.

Disabilities: If you have a need for disability related accommodations or services, please inform your instructor or the Office of Student Support and Disability Services at 405 Cohodas (Phone 227-1550, TDD: 227-1543). Reasonable and effective accommodation and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state and university guidelines.