Advanced Combinatorics and Graph Theory Fall 2005  
3450:636:001 MWF 2:15-3:05pm, 8/29/05–12/11/05, Olin Hall 111  
Text : Applied Combinatorics, Alan Tucker, Wiley  
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Office Hours : MWF 11:00–11:50am, other hours by appointment

Course Policies

1. The grade for the course will be based on an average of the available points, with ranges no higher than : A 90-100%, B 80-89%, C 70-79%, D 60-69%, F 0-59%.  
Plus and minus grades are at the discretion of the instructor.  
Point Breakdown : Homework 30%; Midterm 30%; Final 40%  
Make-up tests will be given at the instructor’s discretion, and only with a valid excuse and notice on or before the original test day. There will be no late homeworks allowed. Homework will be assigned regularly, and may be discussed in class.

2. The only reasons for incomplete grades are such things as long-term illness, which must be substantiated with written documentation. In addition the student must have completed at least 1/2 of the total work in the course, with at least a C average.

3. It is expected that students in this course comport themselves as honest adults. Disruptive behaviour may be cause for administrative withdrawal. This includes talking in class, offensive language, pagers or cell phones ringing during class, eating, etc. Any detected attempts at cheating, including plagiarism, will be dealt with accordingly.

4. The final day to withdraw from this course is Friday, November 18th. This requires the signatures of the instructor and academic advisor.

5. Final Examination : Tuesday, December 13th, 2:00-3:55pm

Course Outline

Chapter 1 : Elements of Graph Theory  
Chapter 2 : Covering Circuits and Graph Coloring  
Chapter 3 : Trees and Searching  
Chapter 4 : Network Algorithms  
Chapter 5 : Generating Counting Methods for Selections and Arrangements  
Chapter 6 : Generating Functions  
Chapter 7 : Recurrence Relations  
Chapter 8 : Inclusion–Exclusion