Course Information

Instructor:

Name:	Jake Wildstrom
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Phone number:	(502)852-5845 (x5845)
Office:	Natural Sciences Building 231
Office hours:	Tuesday 13:00–14:00, Wednesday 11:00–12:00
Alternative office hours:	Monday 12:00–13:00, Thursday 11:00–12:00

Lecture: TR 4:00–5:15 PM in Natural Sciences Building 317

Prerequisites: MATH 521 or MATH 580 or MATH 581 or consent of department.

Description: Fundamental topics in Graph Theory and Combinatorics through Ramsey theory and Polya's theorem respectively. Motivation will be through appropriate applications.

Special notes: This course is preparatory to a qualifying exam and will cover several specific objectives for the exam. Specific topics, and past exams, can be seen at
`http://erdos.math.louisville.edu/~pksaho01/Graduate/prelims.html`.

Texts: No specific texts will be mandated for this class. However, you may find several texts useful. Our course will roughly follow a standard enumerative-combinatorics progression. Such a progression can be seen in Brualdi's *Introductory Combinatorics* starting in the third chapter, Fred Roberts's *Applied Combinatorics* starting in the second chapter, or Alan Tucker's *Applied Combinatorics* starting in the fifth chapter.

Objectives: In this class, we will learn about enumerative methods for several combinatorial objects and structures, and develop introductory concepts in graph theory. Graph theory will be explored in greater detail in the second course in the sequence.

Responsibilities: You are responsible for attending class daily and maintaining comprehension of the material presented in class. You are expected to be active participants in class, to complete problem sets promptly, and to attend examinations on **October 1**, **November 12**, and **December 12, 4:45PM–7:15PM**. Extracurricular interaction with your fellow students, and with the instructor, may be useful in developing your comprehension.

Special needs: Any scheduled absence during an examination, or any other special needs, *must* be brought to my attention during the first week of class. Unscheduled absences will be handled on a case-by-case basis, with exceptions generally made only for documented emergencies. If you have a scheduled absence on the due date for a problem set, you are responsible for making sure it is turned in early.

Honesty: There are many resources available to help you succeed in this class, including consultation during office hours, secondary textbooks, and cooperation with other students. It is important, however, that all papers handed in be the result of your individual comprehension of the course material. Duplication of others' work is both a disservice to your own education and a serious violation of the university's academic honesty policy.

Grades: Problem sets will account for 30% of your grade. The two midterm examinations will each be worth 20%, and the final examination is worth 30%. A 90% overall guarantees a grade of A–, 80% guarantees a B–, and 70% guarantees a C–.

Changes: The syllabus is subject to change. Changes will be announced in class and updated online.