

MCS 421 - Combinatorics

Syllabus

Spring 2018

1 Course Information

Instructor:	Alex Cameron
Email:	acamer4@uic.edu
Office:	SEO 626
Course Webpage:	math.uic.edu/~acamer4/mcs421/index.html
Meeting Time:	MWF 9am-10am
Meeting Location:	Lincoln Hall 103
Office Hours:	Mondays 10am-11am (in SEO 430), 11am-1pm (in SEO 626) or by appointment
Required Textbook:	<i>Introductory Combinatorics</i> (Fifth Edition) by Richard Brualdi
Prerequisites:	Grade of C or better in MATH 215; and Grade of C or better in MATH 310 or Grade of C or better in MATH 320; or consent of the instructor.

2 Course Overview

In this course we will attempt to complete Chapters 1-10 and 14 of the Brualdi text though we might skip certain sections depending on time. Topics will include the pigeonhole principle, permutations and combinations, binomial coefficients, the inclusion/exclusion principle, recurrence relations and generating functions, special counting sequences, and Pólya counting.

3 Grade

The course grade will be based on problem sets (50%), a midterm exam (20%), and a final exam (30%). Final letter grades will be assigned on the following scale:

- A 85-100
- B 75-84
- C 65-74
- D 50-64
- F 0-49

4 Problem Sets

Several problem sets will be assigned during the semester. These assignments will be posted to the course website and announced in class. Each assignment must be turned in at the beginning of class on the date it is due. Photos of the assignment sent via email are not acceptable. **You are strongly encouraged to work together on the problem sets, but anything turned in for a grade must be written in your own words.**

5 Academic Honesty

All UIC students are required to maintain the standards of academic integrity described in the *Guidelines Regarding Academic Integrity*. Any violation of these standards will be handled in accordance with the Student Disciplinary Policy. Again, working in groups on the problem sets is recommended, but make sure that what you turn in for a grade reflects your own understanding of the material and is not just copied from someone else or from the internet.

6 Disabilities Statement

Students with disabilities must inform the instructor of the need for accommodations. Those who require accommodations for access and participation in this course must be registered with the Disability Resource Center. Please contact ODS at 312/413-2183 (voice) or 312/413-0123 (TTY).