

Math 300: Topics in Discrete Mathematics  
Spring 2013  
TF 2:00–2:50 BNW 137, W 3:00–3:50

**Instructor** Chris Staecker  
Email: [cstaecker@fairfield.edu](mailto:cstaecker@fairfield.edu)  
Phone: x3323  
Office: BNW 16  
Office Hours: T,F 10–11, 12–12:30, 1:30–2, W 9–10, 12–1 (usually) 2–3 or by appointment

**Course Website** Follow links from <http://faculty.fairfield.edu/cstaecker>

**Textbook** Epp, *Discrete Mathematics with Applications*, fourth edition

**Final Exam** Tuesday May 7, 8:00 AM

## Course Description

This course builds on the skills developed in MA 231 (Discrete Mathematics). Topics include basic combinatorics (permutations, combinations, counting complicated sets, binomial coefficients), elementary number theory (divisors, Euclid's algorithm, modular arithmetic), elementary graph theory (connectivity, circuits, cycles, planar graphs, graph isomorphisms), and basic complexity theory. The major objective is that students will become competent writers of logical arguments and proofs in all of these subject areas.

## Exams

There will be midterm exams in class on Friday, February 22, and Friday, April 5. Each of these will cover material up to and including the previous Monday. Exam makeups or rescheduling will be permitted only in extreme circumstances.

Students will not use calculators or any other electronic gadgetry during exams.

The two midterm exams will be weighted equally in your course grade, with the final exam weighted double. The final exam will be cumulative, but the midterm exams will not be.

## Homework

Homework assignments are a significant part of the course. Assignments will be excerpts from the textbook exercises, and will be posted at the course website. Students are encouraged to work together on assignments, but each must hand in their own papers.

Homework will be due each Wednesday, with assignments covering material up to and including the previous Friday. Selected problems from each assignment will be graded.

Homework may be handed in for full credit at any time on the due date. Late homework assignments (without good excuse) will lose 1/3 credit per calendar day elapsed since the due date.

## Quizzes

In the class meeting following each homework assignment due-date, a short quiz will be given, covering the same material as the homework. Quiz questions are meant to be similar to the easier questions on the homework. Missed quizzes will only be excused with good reasons.

Students will not use calculators or any other electronic gadgetry during quizzes.

## Office hours

The Professor regards visits to office hours as part of the instruction for this course. Responsible students in this course are expected to visit the Professor occasionally for help with homework and other class material. Class assignments are meant to stretch the abilities of the students, and the Professor expects even the best students to benefit from individual discussion. Students are encouraged to come in small groups if they don't want to come alone.

## Extra credit

The Professor will not entertain requests for extra credit work. Students whose grades have fallen late in the term because of lack of effort or discipline early in the term are especially discouraged from asking for extra credit. Any such requests will be denied with extreme prejudice.

## Grading

Your course grade will be inspired by an average, with the lowest quiz and homework scores dropped. The Professor reserves the right to adjust the course grade at his discretion. The grades are weighed as follows:

|          |     |
|----------|-----|
| Homework | 33% |
| Quizzes  | 33% |
| Exams    | 34% |

Note that homework is weighted very heavily in your grade. There will be about 12 homework assignments during the semester. Thus each assignment contributes 2.75% to your full semester grade. This means that each assignment on which you take 0 credit will essentially lower your final course grade by one notch.

## Cell phones and laptops

Students should have their mobile phones turned off during class. If a student's phone disrupts the class, that student will be publicly ridiculed and called a nimrod by the professor. Students should not use laptops or other electronic gadgetry (except calculators) during class, since these are very distracting to other students and the professor. If any student has a genuine need to use a computer for notetaking or some other legitimate purpose then this should be discussed with the professor.

## Titular nomenclature

You may address the professor as "Papa Staecker," "Sergeant Staecker," "Dr. Staecker," "Professor," "Professor Staecker," or "Chris." I consider these options to be: ridiculous, technically incorrect, technically correct yet overly formal, acceptable, appropriate, and preferred, respectively. Please do not address me simply as "Staecker."

## Protractors???

Protractors will not be required for this course.