Math 184A – Combinatorics (Fall 2018)

- Lecture times and location: MWF 12:00PM – 12:50PM, CENTR 216
- Textbook: Miklós Bóna, *A Walk Through Combinatorics*, third ed.
- Course website: http://math.ucsd.edu/~ssam/184A/
- Instructor: Steven Sam ssam@ucsd.edu
- Office hours: AP&M 7220, MW 11AM-12PM, F 1-2PM

Course description

The main topics are: counting techniques, combinatorial identities, generating functions, and partially ordered sets. We will do mathematical proofs in this course, so the ability to read and write proofs is needed.

I plan to follow Bóna's book, Chapters 1–5, 7, 8, 16. A schedule of topics will be posted on the website and updated as necessary. I will add a few things not in the book, so a copy of my own notes will be kept on the website.

Expectations

You are expected to read the textbook, and it will be infinitely more useful for you if you read ahead of the lectures and prepare questions. You are encouraged to work on homework with others, but solutions must be written up individually.

Any students may attend the office hours listed above without appointment. If you need to meet with me at another time, please email me to schedule.

There is a Piazza page: http://piazza.com/ucsd/fall2018/math184a/home.

All students are expected to sign up and read the Piazza page. Any questions about the course or the material should be posted there. Please do not email me or the TAs about general topics: it is more efficient to have everything on Piazza. Also, please refrain from posting solutions to homework.

If there are issues that cannot be discussed on Piazza, please email me.

Important dates

- Sep 28: First lecture
- Oct 24: Midterm 1
- Oct 26: Deadline to drop classes without mark on transcript
- Nov 19: Midterm 2
- Dec 7: Last lecture
- Dec 13: Final exam: 11:30 AM – 2:29 PM

Grading policy

There are 2 possibilities for getting a total score, and you will be given the one that is higher:

Scheme 1:
- Quizzes: 5%
- Homework: 20%
- Midterm 1: 20%
- Midterm 2: 20%
- Final exam: 35%

Scheme 2:
- Quizzes: 5%
- Homework: 20%
- Best midterm: 20%
- Final exam: 55%

No makeup midterms will be given. Missing both midterms or the final exam will result in a failure, except in extreme circumstances.

Homework is due most Fridays. I plan for there to be 8 homeworks. Homework may be turned in late (by the next Monday) for 75% credit. Exact instructions for turning in homework will be announced soon.

There will be 5 quizzes held during discussion, with the lowest score being dropped to cover for potential absences.

Your solutions in homework and exams will be graded for clarity and correctness. Correctness is equally as important as communicating clearly. So, when appropriate, explanations should be given in complete sentences.

Academic integrity

https://academicintegrity.ucsd.edu/

You are free to collaborate on homework, but the final writeup must be done by yourself. If you worked with other students, please list their names on your assignment (this will not affect your score).

Collaboration is not permitted on any quizzes or exams.

Additional logistics

Students that need special accommodations should talk to me as soon as possible.