MATH S244 Syllabus 2023

Instructor and Class Information

- Instructor: Brett C Smith (call me Brett or Professor Smith)
- Instructor email: brett.c.smith@yale.edu
- Class times: MWF 9.00-11.15am
- Classroom: TBD
- Student office hours: TBD
- Shared Google drive: coming soon…

Course Description

Discrete mathematics describes structures for which all of the component pieces can be enumerated in a list. These objects are unlike continuous structures studied in calculus (think integers versus the real numbers). In particular, we will study finite sets and graphs, and we will see many of their applications to computer science and probability.

This course will also develop methods for doing math. That is, we will form logical statements, construct arguments, write proofs, and share ideas with each other.

Participation and Active Learning

This is a highly interactive class. Each class period will include lecture, discussion, problem solving, and presentations. Attendance is expected and participation is included in your course score (see below).

Textbook

Invitation to Discrete Mathematics (2nd ed.), by Jiri Matousek and Jaroslav Nesetril.
ISBN-10: 0198570422

Assessment

Your course score will be computed as follows:
- Class participation and reflections: 10%
- Homework: 30%
- Midterm Exam: 30%
- Final Exam: 30%
**Class participation and reflection:** You are expected to actively participate in class by working through examples, discussing problems with your peers, and occasionally presenting ideas to the class. There may also be informal question/reflection prompts during class that are collected and given credit for completion.

**Homework:** There will be a problem set due on Monday each week. You are allowed to work with your classmates to solve homework problems, but you should not Google solutions. You can also ask me questions about the problem sets during office hours. You should write up solutions to the problem sets on your own, scan your work, and upload it to Gradescope.

**Midterm Exam:** The midterm test will take place during class on Wednesday, July 19. The test will have two parts; the first part will be completed individually and the second part will be completed in groups. More details on the format of the midterm will follow.

**Final Exam:** There will be a cumulative final test on Friday, August 4 (the last day of class). More details to follow.

**Learning Support and Other Resources**

- Summer session tutoring
- YSS covid policies
- YSS important dates and deadlines
- Student Accessibility Services
- Office of Institutional Equity and Access
- Getting Help at Yale
- Yale Summer Session 2022 Summer Student Handbook