CS2050 Discrete Mathematics

Spring 2026

TR CCB 016 8:00-9:15AM

People

- Lecturers: Abrahim Ladha
- TAs: See canvas for full list

Office Hours

- The TA's office hours are in room CCB264
- My Office is in CCB 207B, second floor. I have an open door policy. If my door is open, I am available to ask questions.
- Much more logisitical information is on our canvas home page.

Course Information

Welcome to discrete mathematics! This class is a foundational and very important. You should come to class thinking this is like a language learning class, the bare minimum needed to engage with the material in more advanced courses.

Evaluation

- Four exams, each worth 21%, combined 84%
- The fourth exam will be during the final exam time and be 90 minutes in length.
- Quizzes, worth a combined 4%
- Homeworks, worth a combined 12%

Schedule

Class	Subject
01/13/26	Introduction, Why Logic?
01/15/26	Propositional Logic
01/20/26	Quantification

Class	Subject
01/22/26	Inference
01/27/26	Proof
01/29/26	More on Proof
02/03/26	Induction
02/05/26	Strong Induction
02/10/26	Exam 1
02/12/26	Set Theory
02/17/26	On the Power of Set Theory
02/19/26	Functions
02/24/26	Big O
02/26/26	Equivalence Relations
03/03/26	Modular Arithmetic
03/05/26	Exam 2
03/10/26	GCD, LCM, Bezout's and FTA
03/12/26	Group Theory, Isomorphism
03/17/26	Chinese Remainder Theorem
03/19/26	Fermat and Euler
03/31/26	RSA
04/02/26	Combinatorics
04/07/26	Exam 3
04/09/26	Binomial Theorem
04/14/26	Pigeonhole Principle
04/16/26	More Pigeonhole Principle
04/21/26	Graph Theory
04/23/26	Finite Probability Theory
04/28/26	Probabilistic Method
05/07/26	Exam 4, 8AM

Lecture Notes

HERE

Lecture Recordings

https://www.youtube.com/playlist?list=PLerMEx1Met7tdZvHntzJ731A6amAvs7S8

Other Resources

Introduction to Mathematical Philosophy by Bertrand Russell

What Is The Name Of This Book? By Robert Smullyan

Discrete Mathematics by Oscar Levin

Applied Combinatorics by Keller and Trotter

Statement of Intent for Classroom Inclusivity

As a member of the Georgia Tech community, I am committed to creating a learning environment in which all of my students feel safe and included. Because we are individuals with varying needs, I am reliant on your feedback to achieve this goal. To that end, I invite you to enter into dialogue with me about the things I can stop, start, and continue doing to make my classroom an environment in which every student feels valued and can engage actively in our learning community.

Integrity Statement

Submission of any work not your own can result in anything from a zero on the assignment to a report to OSI.