

# CS3510 Algorithms

Spring 2026

9:30-10:45AM TR Klaus 1443

## People

- Lecturer: [Abraham Ladha](#)
- TAs:
  - Michael Zuo (Head TA)
  - Ansh Bhatti
  - Yiran Luo
  - Taiki Aiba
  - Xiangrui Kong
  - Ritwic Verma
- For office hour times, see the schedule on canvas. They are subject to change.
- Office hours are located in CCB 331, the third floor of the CoC building, across the Klaus bridge.
- My Office is in CCB 207B, third floor. I have an open door policy. If my door is open, I am available to ask questions.

## Course Information

Welcome to introductory algorithms. We have four main sections.

- Divide and Conquer
- Graph Algorithms
- Dynamic Programming
- NP-completeness

We will follow the book Algorithms by Dasgupta, Papadimitriou, and Vazirani but there are other excellent books. These include the CLRS book, the Kleinberg Tardos book, and Algorithms by Erickson. I will mostly post reading from DPV and from CLRS. It is expected you read these sections along with the posted notes. The Erickson book is also a really great resource.

The fifth “unit” is a sampler of many other subfields in algorithms.

## Evaluation

- Five exams, including the final, each worth 20%
- Your lowest exam score is dropped effectively making the final optional
- Problem sets, worth 20%

This is subject to change as I realize what takes more or less time.

<b>Class</b>	<b>Subject</b>
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01/14/26	DivConquer
01/16/26	Mergesort, Master Theorem
01/21/26	Arithmetic
01/23/26	Quicksort
01/28/26	Exam 1
01/30/26	DFS, Topsort, SCCs
02/04/26	BFS, Dijkstra's
02/06/26	Kruskals
02/11/26	Floyd-Warshall, Bellman-Ford
02/13/26	Kirchoff's Matrix Tree Theorem
02/18/26	Exam 2
02/20/26	Dynamic Programming
02/25/26	Longest Sequences
02/27/26	Chain Matrix Multiplication
03/04/26	Knapsack
03/06/26	Tree DP
03/11/13	Exam 3
03/13/26	NP-completeness
03/18/26	Hard Graph Problems
03/20/26	Hard Constraint Problems
04/01/26	Coloring
04/03/26	Max Flow Min Cut Theorem
04/08/26	Exam 4
04/10/26	Linear Programming
04/15/26	Duality
04/17/26	Randomized Algorithms
04/22/26	Approximation Algorithms
04/24/26	TBD

## **Lecture Resources**

## **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 policy**

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