

CS 124  
Algorithms and Data Structures  
Overview

Michael Mitzenmacher

# Course Goal

- Provide a solid background in algorithms and data structures, in preparation for either a job in industry or more advanced graduate courses.

# Class Setup

- People from all concentrations (mathematics, biology, physics, economics...) welcome.
- Assignments are theoretical/mathematical, but also have programming assignments.
- CS 50 minimum prerequisite.
  - CS 51/61, CS 121, or strong math background all helpful.

# Topics

- Graph Algorithms
- Greedy Algorithms
- Divide and Conquer
- Dynamic Programming
- Linear Programming
- Hashing and Randomness
- Randomized Algorithms
- NP-complete problems and how to solve them.

# Time

- Tu-Th, 11:30 - 1.
- Taught every spring.

*I hope to see you there.*