

MCS/CS 401, Spring 2020

Final, Topics Outlines

April 30, 2020

- Midterms 1 and 2 topics
- single-source shortest paths: Bellman - Ford, Dijkstra
- maximum flow: Ford - Fulkerson, Edmonds - Karp
- NP-completeness: P, verification algorithms, NP, reductions, NP-completeness, reduction of $3 - CNF - SAT$ to *CLIQUE* and *SUBSET - SUM*

Chapters and sections covered

Chapters and sections for Midterms 1 and 2, Chapter 24 (Sections 24.1,24.3, without correctness proofs), Chapter 26 (Sections 26.1, 26.2, proofs: only Theorem 26.6. outline), Chapter 34 (material covered in class, please see lecture slides)