Schedule

A week-by-week breakdown of the material.

Week 1

Day 1 Introduction

Day 2 Graphs, Euler Circuits, Valence[1]

Day 3 Hamiltonian Circuits, Complete Graphs[2]

Day 4 Traveling Salesman Problem[3]
Minimum Cost Spanning Trees[4]

Day 5 Cut Property for MST's and Shortest-Paths Algorithms[5]
Directed Graphs, Critical Paths[6]

Week 2

Day 1 Priority Lists, Scheduling, Independent Tasks[7]

Day 2 Bin-packing, Vertex-Coloring[8]

Day 3 MIDTERM 1

Day 4 Linear Programming, Mixture Problems[9]
Corner Point Principle[10]

Day 5 Transportation Problems, Tableaux[11]

[1] notes/graphs_euler.html
[2] notes/graphs_hamiltonian.html
[3] notes/graphs_tsp.html
[4] notes/graphs_mst.html
[5] notes/cut_property_dijkstra.html
[6] notes/graphs_directed.html
[7] notes/scheduling.html
[8] notes/bin_packing.html
[9] notes/linear.html
[10] notes/corner_point.html
[11] notes/tableaux.html

Week 3

Day 1 Voting Systems, Majority Rules[12]

Day 2 Voting with more than 3 candidates[13]
Arrow's theorem[14]

Day 3 Manipulability[15]
Impossibility, Chair's Paradox[16]

Day 4 MIDTERM 2

Day 5 Error-Correcting, Identification Numbers[17]

Week 4

Day 1 Binary Codes, Parity Check[18]
Day 2 Data Compression[19]
Day 3 Cryptography[20]
Day 4 Wrap-up
Day 5 MIDTERM 3

[12] notes/voting_majority.html
[13] notes/voting_more_candidates.html
[14] notes/voting_arrow.html
[15] notes/voting_manipulability.html
[16] notes/voting_chairs.html
[17] notes/codes_ecc.html
[18] notes/codes_binary.html
[19] notes/codes_compression.html
[20] notes/crypto.html