

My Notes 2024

Department of Computer Science, Copenhagen University (DIKU)
Algorithms and Data Structures

Simon Winther
zlp616@alumni.ku.dk

November 27, 2023.

Contents

1	5/2: Introduction, Proofs, Loop Invariants, CLRS 2.1 (RP)	2
2	7/2: Time Complexity and Asymptotic Notation, CLRS 2.2, 3 (RP)	2
3	12/2: Divide and Conquer, Recursion Equations, and Lower Bound for Sorting, CLRS 2.3, 4 up to 4.5, pages 157-160, 8.1 (RP)	2
4	14/2: Amortized Analysis, CLRS 16 (RP)	2
5	19/2: LSM Trees, Fibonacci Heaps, CLRS digital chapter 19 Download digital chapter 19 (19.4 is cursory) (RP)	2
6	21/2: Dynamic Programming, CLRS 14 except for 14.2 and 14.5 (MA)	2
7	26/2: Greedy Algorithms, CLRS 15 (MA)	2
8	28/2: No teaching due to open house	2
9	4/3: Binary Search Trees, CLRS 12 and 13 (PW)	2
10	6/3: Disjoint Sets, Plane Sweep, CLRS 19.1-3, CLRS digital chapter 33.1-2 Download CLRS digital chapter 33.1-2 (PW)	2
11	11/3: Minimum Spanning Tree, CLRS 21 (PW)	2
12	13/3: Shortest Paths, CLRS 22 (PW)	2
13	18/3: Computational Geometry, CLRS digital chapter 33 Download CLRS digital chapter 33 (PW)	2
14	4/3: Question Time (same time and place as lectures) (MA, PW, RP)	2

15 8/4 OR 10/4?: Written Exam	2
16 Appendix	2

- 1 5/2: Introduction, Proofs, Loop Invariants, CLRS 2.1 (RP)
- 2 7/2: Time Complexity and Asymptotic Notation, CLRS 2.2, 3 (RP)
- 3 12/2: Divide and Conquer, Recursion Equations, and Lower Bound for Sorting, CLRS 2.3, 4 up to 4.5, pages 157-160, 8.1 (RP)
- 4 14/2: Amortized Analysis, CLRS 16 (RP)
- 5 19/2: LSM Trees, Fibonacci Heaps, CLRS digital chapter 19 Download digital chapter 19 (19.4 is cursory) (RP)
- 6 21/2: Dynamic Programming, CLRS 14 except for 14.2 and 14.5 (MA)
- 7 26/2: Greedy Algorithms, CLRS 15 (MA)
- 8 28/2: No teaching due to open house
- 9 4/3: Binary Search Trees, CLRS 12 and 13 (PW)
- 10 6/3: Disjoint Sets, Plane Sweep, CLRS 19.1-3, CLRS digital chapter 33.1-2 Download CLRS digital chapter 33.1-2 (PW)
- 11 11/3: Minimum Spanning Tree, CLRS 21 (PW)
- 12 13/3: Shortest Paths, CLRS 22 (PW)
- 13 18/3: Computational Geometry, CLRS digital chapter 33 Download CLRS digital chapter 33 (PW)
- 14 4/3: Question Time (same time and place as lectures) (MA, PW₃/RP)
- 15 8/4 OR 10/4?: Written Exam
- 16 Appendix