

## Syllabus

data structures, abstract data types CLRS 1.1, 2.1–2, 10  
dictionaries, binary search trees CLRS 12  
red–black trees CLRS 13  
AVL trees CLRS problem 13–3  
augmenting data structures CLRS 17 (14 in the third edition)  
B–trees CLRS 18  
average case complexity and randomized algorithms CLRS 5.1–5.3;  
Appendix C.1–C.3; 7; 9.2  
lower bounds on problem complexity CLRS 8.1, online lectures  
hashing CLRS 11.1–4 (also see 11.5 in the third edition)  
amortized analysis CLRS 16 (17 in the third edition)  
priority queues, heaps CLRS 6  
binomial heaps CLRS (19 in the second edition)  
Fibonacci heaps CLRS (19 in the third edition, 20 in the second  
edition)  
disjoint sets CLRS 19 (21 in the third edition)  
graph representations, breadth first and depth–first search CLRS 20  
(22 in the third edition)  
minimum spanning trees CLRS 21 (23 in the third edition)  
single source shortest paths CLRS 22.3 (24.3 in the third edition)