

CSCI 3104 → ALGORITHMS (SUMMER) READING LISTS

***** Reading Lists mentioned are subject to change throughout the course timeline *****

Week 1:

- Fundamentals of Algorithms: Ch. 1 → Complete; Ch. 2 → 2.1, 2.2
- Time and Space Complexity: Ch. 3 → Complete

Week 2:

- Divide & Conquer; Recurrence Relations: Ch. 2 → 2.3; Ch. 4 → 4.1 upto 4.5, Ch. 7 → Complete
- Efficient Data Structures: Hash Tables: Ch. 11 → Complete

Week 3:

- Greedy Algorithms: Ch. 16 → 16.1, 16.2, 16.3; Ch. 2 → 2.1, 2.2
- Dynamic Programming: Ch. 15 → Complete

Week 4:

- Dynamic Programming: Ch. 15 → Complete

Week 4, 5, 6:

- Graph Algorithms (Intro): Ch. 22 → 22.1, 22.2, 22.3
- Graph Algorithms (MSTs): Ch. 23 → Complete
- Graph Algorithms (Shortest Paths): Ch. 24 → 24.1, 24.2, 24.3
- Graph Algorithms (Max Flows): Ch. 26 → 26.1, 26.2

Week 6:

- P and NP: Ch. 34 → 34.1, 34.2, 34.3; Ch. 35 → 35.1, 35.2, 35.3

Week 7:

- Advanced Topics (Sorting Techniques): Ch 8 → Complete

Some awesome YouTube playlists and channels:

- Dynamic Programming: [link-here](#)
- Graphs and other DS: [search-here](#)
- Back to Back SWE: [link-here](#)