

Algorithms and Data structures

2024 2025

المراجع References

1. *Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein: Introduction to Algorithms, fourth Edition. 2022*
2. *Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein: Introduction to Algorithms, 3rd Edition. 2009*
3. *Kurt Mehlhorn, Peter Sanders: Algorithms and Data Structures: The Basic Toolbox. Springer 2008*
4. *Jon M. Kleinberg, Éva Tardos: Algorithm design. Addison-Wesley 2006*
5. *Martin Dietzfelbinger, Lectures of Algorithms and data structures in german language.*

مفردات المقرر Syllabus

- **Sorting algorithms**
- **Asymptotic notations**
- **Elementary data structures**
- **Divide and Conquer**
- **Greedy algorithms**
- **Elementary Graph algorithms**
- **Minimum spanning tree**
- **Shortest path problem**