People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research

University of Sciences and Technology of Oran – Mohamed Boudiaf
Mathematics and Computer Science Faculty
Computer Science Department

Course Handout

Algorithmic and Complexity

Training Offer:	**Common core Engineer**
Domain:	**Mathematics and Computer Science**
Study:	**Computer Science**
Year:	**Second year**

Developed by:
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Course objectives:
The main goal is to develop the ability to define and manipulate abstract data structures from the simplest (linear) to more complex data structures (trees, graphs).

One of the important concepts invoked throughout this course concerns the calculation of algorithm complexity. It's important to show the impact of the choice of data structures on the complexity. It's why we dedicate a chapter to sorting algorithms whose complexity is strongly influenced by the data structure used to store the information to be sorted.

Contents

BIBLIOGRAPHIC REFERENCES

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- S. Kannan, M. Naor, S. Rudich, "Implicit Representation of Graphs", SIAM J. on Discrete Math., volume 5, pages 596-603, 1992.
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