

Zarka Private University
Faculty of Science
Department of Computer Science
Summer Semester 2001-2002

Algorithms Design and Analysis 0306352

Prerequisite : Data Structures 0306250

Lecturer: Salah F. Saleh

Office: 217D.

Outline:

1. Principles and Examples of Analyzing Algorithms and Problems.
2. Sorting Algorithms.
3. Selection and Adversary Arguments..
4. Graph Algorithms.
5. String Matching.
6. Dynamic Programming.
7. Polynomials and Matrices.
8. NP-Complete Problems.
9. Parallelism.

Textbook:

Sara Baase, "Computer Algorithms: Introduction to Design and Analysis", 3rd edition, 2000, Addison Wesley.

References :

1. A. Aho, J. Hopcraft, and J Ullman, "The Design and Analysis of Algorithms", 1974, Addison Wsdley.
2. R. Sedgewich, "Algorithms", 1988, Addison Wesley.

Grading:

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| First Examination: | 20 Marks. |
| Second Examination: | 20 Marks. |
| Homeworks and Quizzes: | 10 Marks. |
| Final Examination: | 50 Marks. |