

Algorithmique 1

Lecturers

Olivier MARKOWITCH (Coordinator), Bernard FORTZ and Dimitrios PAPADIMITRIOU

Course mnemonic

INFO-F103

ECTS credits

10 credits

Language(s) of instruction

French

Course period

Second term

Course content

(1) data structure: definitions and implementations of lists, stacks, queues, trees, heap, ... as abstract data types. (2) programming methods: recursivity, quicksort, heapsort, backtracking, introduction to dynamic programming, ...

Objectives (and/or specific learning outcomes)

algorithmic approach of data structure and abstract data types

Pre-requisites and co-requisites

Courses having this one as pre-requisit

INFO-F203 | Algorithmique 2 | 5 crédits and INFO-H303 | Bases de données | 5 crédits

Course having this one as co-requisit

INFO-F202 | Langages de programmation 2 | 5 crédits

Teaching method and learning activities

Theoretical and practical lessons, individual works

References, bibliography and recommended reading

(1) Course book ; (2) Bradley Miller, David Ranum, "Problem solving with algorithms and data structures using Python", Franklin, Beedle & Associates ; (3) Thomas Cormen, Charles Leiserson et Ronald Rivest, Introduction à l'algorithmique : Cours et exercices corrigés, Dunod

Other information

Contact(s)

Olivier Markowitch Campus de la Plaine Bâtiment NO Local 2N8.115A

Evaluation method(s)

Other

Evaluation method(s) (additional information)

Written examination. Attendance at tutorials and personal work is a necessary criterion for success.

Determination of the mark (including the weighting of partial marks)

Projets, interrogation, and other works done during this course during the academic year count for 1/5 of the final evaluation, the examination counts for 4/5 of the final evaluation.

Main language(s) of evaluation

French

Programmes

Programmes proposing this course at the faculty of Sciences

BA-INFO | Bachelor in Computer science | unit 1 and BA-MATH | Bachelor in Mathematics | unit 2