

Algorithms for big data

Lecturer

John IACONO (Coordinator)

Course mnemonic

INFO-F440

ECTS credits

5 credits

Language(s) of instruction

English

Course period

Second term

Campus

Plaine

Course content

Algorithms for big data. Classical algorithm analysis and core techniques (hashing, sorting). Bloom filters, sketching, streaming, dimensionality reduction, locality sensitive hashing, clustering, algorithms for external memory and cache-oblivious models.

Objectives (and/or specific learning outcomes)

Students will learn a variety of algorithmic techniques, their application and analysis.

Pre-requisites and co-requisites

Required knowledge and skills

Basic knowledge of programming in a language such as python. Basic probability theory and algebra should be well-understood.

Teaching method and learning activities

Lectures and homework. Almost all algorithms presented will be coded fully.

Other information

Place(s) of teaching

Plaine

Contact(s)

John Iacono

Evaluation method(s)

written examination and Project

Main language(s) of evaluation

English

Programmes

Programmes proposing this course at the faculty of Sciences

MA-INFO | Master in Computer science | finalité Professional/unit 2 and MS-BGDA | Specialized Master in data science, Big data | unit U

Programmes proposing this course at the Solvay Brussels School of Economics and Management

MS-BGDA | Specialized Master in data science, Big data | unit U

Programmes proposing this course at the Brussels School of Engineering

MS-BGDA | Specialized Master in data science, Big data | unit U