

DATA STRUCTURES AND ALGORITHMS

4 ECTS (CREDITS)

Purpose of the subject:

To introduce data structures, the basics of algorithm complexity assessment, and to enable students to choose the right algorithm to solve a problem. To explore in practice and compare some search, sorting and optimisation algorithms.

Study subject annotation:

Students are introduced to the basic concepts of data structures and algorithms, definitions of algorithm complexity, and the theoretical basis of evaluation. Problems are solved to understand the principles of storage and operations on different types of data (logical, integer, real, nominal, sets, graphs, etc.). Search, sort, shortest path and travelling salesman algorithms are tested in practice and their complexity is evaluated.

Evaluation form:

Exam