

Only the german version of the module description as part of the study regulations is legally binding.

Module name	Artificial intelligence
Module number	INF-25-Ba-KI
Responsible lecturer	Prof. Dr. Michael Schroeder michael.schroeder@tu-dresden.de
Qualification objectives	Students master the basic methods and algorithms of artificial intelligence. They are competent in their specification, analysis, application and quantitative evaluation in relation to concrete data.
Content	Contents of the module are basics of natural language processing and knowledge representation such as entity recognition and relation extraction, Bayesian reasoning and argumentation, basics and application of machine learning methods such as hidden Markov models, decision trees, probabilistic reasoning, neural networks, kMeans, hierarchical clustering as well as methods for evaluating machine learning methods.
Teaching and learning methods	The module comprises lectures of 2 SWS, exercises of 2 SWS and the self-studium. The language of instruction for the lectures and exercises is German.
Prerequisites for participation	The competencies to be acquired in the module INF-25-Ba-AuD Algorithms and Data Structures are a prerequisite for the Diploma degree program in Computer Science, the Bachelor's degree program in Computer Science and the Bachelor's degree program in Applied Computer Science.
Applicability	The module is a compulsory module in the Diploma degree program in Computer Science in the foundation course. The module is a compulsory module in the Bachelor's degree course in Computer Science and in the Bachelor's degree course in Applied Computer Science. The module creates the prerequisites for the modules that name it among the prerequisites for participation .
Requirements for earning credit points	The credit points are earned if the module examination is passed. The module examination consists of a written examination lasting 90 minutes. The examination language is German.
Credit points and grades	5 credit points can be earned through the module. The module grade corresponds to the grade of the examination.
Module frequency	The module is offered every summer semester.
Workload	The total workload is 150 hours.
Module duration	The module comprises one semester.