

Module description

Module title					Abbreviation
Data Science 10-I=DM-232-m01					
Module coordinator				Module offered by	
holder of the Chair of Computer Scienc			e X Institute of Computer Science		
ECTS	ECTS Method of grading		Only after succ. compl. of module(s)		
5	nume	rical grade			
Duration Module level		Other prerequisites			
1 semester		graduate			
Contents					
Foundations in the following areas: definition of data mining and knowledge, discovery in databases, process model, relationship to data warehouse and OLAP data preprocessing, data visualisation, unsupervised learning methods (cluster- and association methods), supervised learning (e. g. Bayes classification, KNN, decision trees, SVM), learning methods for special data types, further learning paradigms.					
Intended learning outcomes					
The students possess a theoretical and practical knowledge of typical methods and algorithms in the area of da- ta mining and machine learning. They are able to solve practical knowledge discovery problems with the help of the knowledge acquired in this course and by using the KDD process. They have acquired experience in the use or implementation of data mining algorithms.					
Courses (type, number of weekly contact hours, language — if other than German)					
V (2) + Ü (2)					
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether					
module is creditable for bonus)					
If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate). Language of assessment: German and/or English creditable for bonus					
Allocation of places					
Additional information					
Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT, KI, HCI, GE, SEC, IN					
Workload					
150 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
Master's degree (1 major) Information Systems (2019)					
Master's degree (1 major) Information Systems (2022)					
Master's degree (1 major) Computer Science (2023)					
Master's degree (1 major) Aerospace Computer Science (2023)					
Master's degree (1 major) Management (2024)					
Master's degree (1 major) Information Systems (2024)					
Master's degree (1 major) Economathematics (2024)					

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