

Lehrform (*teaching format*) / **SWS** (*hours per week*): 2VL + 2UE

Kreditpunkte (*credit points*): 6

Turnus (*frequency*): usually, each winter term

Inhaltliche Voraussetzungen (*content-related prior knowledge/skills*): NONE

Sprache (*language*): English

Lehrende (*teaching staff*): AG Datenbanken (Prof. Dr. Sebastian Maneth)

Studiengang (<i>degree program</i>)	Module	Semester
Informatik (Master)	IMAA, IMVA-DMI, IMVA-AI	ab 1.Sem.
Digital Media (Master)	DMM-MI	ab 1.Sem.
Digital Media & Society (Master)	B.1	ab 1.Sem.
Management Information Systems (Master)	(MIS-INF3)	from 2nd sem.
Informatik (Bachelor)	(nur <i>Freie Wahl</i>)	
Zertifikatsstudium DiMePäd	DM in Lernumgebungen	ab 1.Sem.

Lernergebnisse / Learning Outcome:

- Ability to apply database technology (e.g. MySQL) in different contexts
- Understanding of full-text search and text index engines
- Competence in string matching methods
- Knowledge of various formats (XML, RDF) and how to query them

Inhalt / Contents:

- XML
- Database Schema Design, SQL Queries
- Implementation of Data Format Conversions
- Text Indexing (with Lucene)
- String Matching Algorithms (Boyer-Moore, Horspool, KMP, etc.)
- Querying XML using XPath
- Querying RDF using SPARQL

Hinweise (*remarks*): The table lists only the primary / most specific modules to which this course is assigned.