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)

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

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.