Database Concepts

Summer

(in German: Database Concepts)

Module-ID: FIN-INF-120529

Abbreviation	Credit Points	Semester	Term	Duration	Language	Level
DB1	6	Summer	starting at 1.	1 Semester	english	Master

Link:	LSF
Limited accessability:	
Responsibility:	Gunter Saake
Lecturer:	Gunter Saake
Classes:	• Lecture *Database Concepts* • Exercise class *Database Concepts*
Applicability in curriculum:	- M.Sc. DE: Grundlagen Informatik

Intended learning outcomes:
The students ...

- understand basic concepts of database systems
- are able to model relational databases
- are familiar with relational database languages
- can develop database applications
- model relational databases based on complex and changing practical usage scenarios

Content:

- Properties of Database Systems
- Architectures
- Conceptual Design of Relational Databases
- Relational Database Model
- Mapping of ER-Schemas to Relations
- Database Languages (Relational Algebra, SQL)
- Formal Design Criteria and Normalization
- Database Application Programming
- Further Database Concepts, e.g., Views, Triggers, Access Rights

Workload:
56 contact hours + 124 h self study

Pre-examination requirements:	**Type of examination:**	**Teaching method / lecture hours per week (SWS):**
Successful participation in the exercise	Written exam (120 min)	• 2 SWS Lecture • 2 SWS Exercise

Prerequisites according to examination regulations:	**Recommended prerequisites:**
Cannot be attended together with “Datenbanken 1”	

Media:	**Literature:**
	• Datenbanken - Konzepte und Sprachen. Gunter Saake, Kai-Uwe Sattler, Andreas Heuer, March 2013, ISBN 3-8266-9453-8, MitpVerlag; Edition 5 • Fundamentals of Database Systems. Ramez Elmasri, Shamkant B. Navathe, April 2010, ISBN 0-136-08620-9, Addison Wesley; Edition 6

Comments:

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