Advanced Topics in Databases

Summer

(in German: Advanced Topics in Databases)

Module-ID: FIN-INF-120277

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

Link:	LSF
Limited accessability:	
Responsibility:	Gunter Saake
Lecturer:	David Broneske
Classes:	• Lecture *Advanced Topics in Databases* • Exercise *Advanced Topics in Databases*
Applicability in curriculum:	- M.Sc. INF: Informatik - M.Sc. INGINF: Informatik - M.Sc. WIF: Informatik - M.Sc. DKE: Data Processing for Data Science - M.Sc. DE: Methoden der Informatik - M.Sc. DE: Fachliche Spezialisierung - M.Sc. VC: Computer Science

Intended learning outcomes:
The students ...

- understand selected advanced topics in databases

- know state-of-the-art solutions for current problems in database research
- assess advanced solutions for current database systems
- can apply advanced methods in database implementation techniques

Content:
Topics of the lecture will frequently change in accordance with current research directions in the database community and represent cutting-edge aspects. Current Topics:

- Main-memory database algorithms and techniques
- Heterogeneous processing in database systems
- Advanced indexing ans storage techniques
- Storage techniques for NoSQL database systems

Workload:
56h contact hours + 124h self-study

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

Prerequisites according to examination regulations:	Recommended prerequisites:
none	• Knowledge about database foundations and about principles of internal database operations • Basic programming skills

Media:	Literature:

Comments:

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