

Module Handbook (<https://modhb.uni-kl.de/>)

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Module INF-22-34-M-6

Recent Developments for Data Models (M, 8.0 LP)

Module Identification

Module Number	Module Name	CP (Effort)
INF-22-34-M-6	<i>Recent Developments for Data Models</i>	8.0 CP (240 h)

Basedata

CP, Effort	8.0 CP = 240 h
Position of the semester	1 Sem. irreg. SuSe
Level	[6] Master (General)
Language	[DE/EN] German or English as required
Module Manager	Deßloch, Stefan, Prof. Dr. (PROF DEPT: INF) (/staff/504/)
Lecturers	Deßloch, Stefan, Prof. Dr. (PROF DEPT: INF) (/staff/504/)
Area of study	[INF-INSY] Information Systems
Reference course of study	[INF-88.79-SG] M.Sc. Computer Science (/mhb/FB-INF/cos-536/)
Lifecycle-State	[NORM] Active

Courses

Type/SWS	Course Number	Choice in Module-Part	SL	PL	CP	Sem.
4V+2U	INF-22-34-K-6 (/mhb/courses/INF-22-34-K-6/)	P	U-Schein	PL1	8.0	irreg. SuSe

- About [INF-22-34-K-6] (/mhb/courses/INF-22-34-K-6/): Title: "Recent Developments for Data Models"; Presence-Time: 84 h; Self-Study: 156 h
- About [INF-22-34-K-6] (/mhb/courses/INF-22-34-K-6/): The study achievement "[U-Schein] proof of successful participation in the exercise classes (ungraded)" must be obtained.

Examination achievement PL1

- Form of examination: **oral examination (20-60 Min.)**
- Examination Frequency: Examination only within the course
- Examination number: 62233 ("Recent Developments for Data Models")

Evaluation of grades

The grade of the module examination is also the module grade.

Contents

From [INF-22-34-K-6] **Recent Developments for Data Models** (/mhb/courses/INF-22-34-K-6/):

- Object-oriented extensions of the relational model and SQL (user-defined types, object behavior)
- Support for multi-media data management
- Application access to object-relational extensions
- Implementing object behavior in SQL databases
- SQL extensions of data analysis and business intelligence applications
- Temporal data management
- Data streams and continuous queries
- Semi-structured data models and query languages (XML, JSON)
- Graph data models and query languages
- NoSQL: data models and query support

Competencies / intended learning achievements

Students...

- are able to explain, compare and analyze important new characteristics and features in the area of data models and query languages,
- are able to explain, evaluate and use recent extensions to the relational data model and SQL,
- are able to explain, evaluate and use XML-based data models and query languages,
- are able to describe and compare the features of data stream

Literature

From [INF-22-34-K-6] **Recent Developments for Data Models** (/mhb/courses/INF-22-34-K-6/):

literature to be announced in the lecture.

Requirements for attendance of the module (informal)

None

- Notice: Some Courses have informal requirements for attendance:
 - #A: [INF-22-34-K-6] **Recent Developments for Data Models** (4V+2U, 8.0 LP) (P: Obligatory) (/mhb/courses/INF-22-34-K-6/#teilnahmevor-5528)

Requirements for attendance of the module (formal)

None

References to Module / Module Number [INF-22-34-M-6]

Course of Study	Section	Choice/Obligation
[INF-88.79-SG] M.Sc. Computer Science (/mhb/FB-INF/cos-536/)	[Specialisation] Specialization 1	[WP] Compulsory Elective
