

Module description

| Module title | | | | | Abbreviation |
|--|-----------------|----------------------------------|---------------------|-------------------------------------|-----------------|
| Data Modelling | | | | | 12-DM-F-132-m01 |
| Module coordinator | | | | Module offered by | |
| holder of the Junior Professorship of Information Management | | | | Faculty of Management and Economics | |
| ECTS | Meth | Method of grading Only after suc | | compl. of module(s) | |
| 5 | numerical grade | | | | |
| Duration | | Module level | Other prerequisites | | |
| 1 semester | | undergraduate | | | |
| Contents | | | | | |

Contents

The module covers the fundamentals and concepts of data modelling as well as languages for creating and querying data bases.

Main topics:

- Fundamentals and application of semantic data modelling
- Fundamentals and application of the relational data model
- Fundamentals and application of data query languages
- Further aspects of data modelling

Intended learning outcomes

Upon completion of the module students are able

- (i) to design good conceptual and logical data models;
- (ii) to transform conceptual data models into physical data schemas;
- (iii) to create and update databases and tables;
- (iv) to formulate complex database queries;
- (v) to design different applications with databases.

 $\textbf{Courses} \ (\textbf{type}, \, \textbf{number of weekly contact hours, language} - \textbf{if other than German})$

V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages) or c) term paper (approx. 10 to 15 pages) and presentation (approx. 10 minutes), weighted 2:1 or d) written examination consisting entirely or partly of multiple/single choice questions (approx. 60 minutes) or e) oral examination (one candidate each: approx. 10 to 15 minutes; groups of 2: approx. 20 minutes; groups of 3: approx. 30 minutes) or f) completion of programming exercises (approx. 20 hours) and written examination (approx. 60 minutes), weighted 1:1

Allocation of places

Number of places: 50. Should the number of applications exceed the number of available places, places will be allocated as follows: (1) Bachelor's students of Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) will be given preferential consideration. (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (1) and the number of applications from Bachelor's students of Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) exceeds the number of available places, places will be allocated among applicants from this group according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. (4) When places are allocated in accordance with (2) and the number of applications from students of other subjects exceeds the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the re-



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spective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. (5) Within the groups according to (1) and (2), applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. (6) Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. (7) A waiting list will be maintained and places re-allocated as they become available.

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