**Technische Anforderungen**

1.Strict application of the Database System Development Lifecycle to ensure efficiency of development and to avoid data redundancy

2.Strict separation of database, database application and GUI

3. All data, constraints and business rules are stored in the database (application).

4. The GUI provides means for data access and input only.

5. The GUI, to be designed with MS Access, serves the

only purpose to insert, update, access and delete

data.

6. The data model has to be implemented with the

modelling tool Innovator.

7. The language of the application (data model, GUI) is

German.

**Anforderungen an die Datenbank Aufbau**

1. The GUI must not implement any data constraints.

2. The data model, constraints and business logic in

the database must be designed to forbid any

inconsistent data.

3. Each modelling element (entity, role, constraint) has

to have a description defining the meaning of the

entity precisely to avoid misunderstandings.

Example: Possible definitions for entity „Semester “

1. „Identification of a specific academic half year, e.g. winter

semester 2012/13. “

2. „Identification of a generic academic half year and all its

modules according to the examination regulations, e.g. 6th

semester of Softwaretechnik (SWT6). “

3. „Group of students having to take the same lectures as

stipulated

**Aufbau Stundenplan**

1. The examination regulations define which modules have

to be offered. Note that not all lectures are defined in the

examination regulations (e.g. Wahlfach X, elective X).

2. Modules can consist out of various elements (lectures,

labs, projects, …) having a certain number of weekly

semester hours (SWS).

3. Each module element is taught by professors and/or

external lecturers (Lehrbeauftragte).

4. A semester group may be split into various teaching

groups (e.g. IT3A, IT3B) and sub-groups (e.g. lab groups

1 and 2 of IT3A).

5. Two groups may share the same lecture (e.g. SWT, SWM

share Databases 2) having different names for the

groups.

**Anforderungen Dozent**

1.A lecturer cannot be professor and external lecturer

at the same time. However, an external lecturer can

become a professor and a professor can become an

external lecturer after reaching his pension age.

2.An external lecturer is associated to a specific

department (Fakultät).

3.A module element has a certain number of SWS

assigned in the examination regulations. The number

of hours in the time schedule and the number of

SWS as work-load of the lecturer might be different

to those, e.g. DB2 Project: Student SWS = 2,

Lecturer SWS = 1, hours in time schedule = 0.

4.Professors have to work a certain amount of SWS each

semester. The work can be teaching or assigned tasks

(dean, running a lab room, research, …).

5.Currently each full-time professor has to work 18 SWS

on average (required work load = Deputat). The

assigned number of SWS per semester might be higher

or lower but not below 9 SWS.

6.Professors might work part-time, be ill for a longer

time or be on sabbatical, i.e. the deputat is reduced.

7.External lecturers do not have a required work load

and cannot take other assigned tasks.

8.The application has to document the work load of each

professor over the years.

**Anforderungen Report**

1.List of each task of each professor for a selected

semester also giving the total work load balance

(Stundenkontostand – accumulated real work load

versus required work load (Deputat))

2.List of module elements offered in a selected

academic half year for a selected degree

(Studiengang)

3.List of external lecturers, their SWS for a selected

academic half year and their addresses

4.List of services provided, i.e. list of module elements

taught by IT professors for a different department

(name of module element, name of the lecturer,

SWS, department which the service is provided for)

5.List of services used, i.e. list of module elements

taught to IT students by a lecturer of another

department (name of module element, name of the

lecturer, SWS, department which the service is

provided by)

**Anforderungen GUI**

1.Dozentensicht und Gesammtsicht muss auswählbar sein

2.Neue Vorlesungen/ Dozenten müssen hinzugefügt werden können

3.Vorhandene Vorlesungen müssen geändert werden können über die GUI

4.Optional: Mehrere Ausgabemöglichkeiten müssen auswählbar sein (Textfeld, Datei, Ausdruck)

5.Optional Ausgabe Raumbelegung für jeden Raum