

# COURSE DETAIL

## DATABASE SYSTEMS

**Country**

Germany

**Host Institution**

Free University of Berlin

**Program(s)**

Technical University Berlin,Free University Berlin

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Computer Science

**UCEAP Course Number**

136

**UCEAP Course Suffix****UCEAP Official Title**

DATABASE SYSTEMS

**UCEAP Transcript Title**

DATABASE SYSTEMS

**UCEAP Quarter Units**

4.50

**UCEAP Semester Units**

3.00

## Course Description

This course discusses topics including database design with ERM/ERDD; theoretical foundations of relational database systems: relational algebra, functional dependencies, and normal forms; relational database development: SQL data definitions, foreign keys and other integrity constraints, and SQL as applicable language: essential language elements, and embedding in programming language; application programming, and object-relational mapping; security and protection concepts; transaction subject, transactional guaranties, synchronization of multi user operations, and fault tolerance features; and application and new developments: data warehousing, data mining, and OLAP. The topics are deepened in an implementation project for student groups.

### Language(s) of Instruction

English

### Host Institution Course Number

19301501

### Host Institution Course Title

DATABASE SYSTEMS

### Host Institution Campus

### Host Institution Faculty

MATHEMATIK UND INFORMATIK

### Host Institution Degree

### Host Institution Department

Informatik

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