# COURSE DETAIL

## DATA MANAGEMENT

**Country**
Netherlands

**Host Institution**
Wageningen University and Research Center

**Program(s)**
Wageningen University

**UCEAP Course Level**
Upper Division

**UCEAP Subject Area(s)**
Computer Science Bioengineering

**UCEAP Course Number**
101

**UCEAP Course Suffix**

**UCEAP Official Title**
DATA MANAGEMENT

**UCEAP Transcript Title**
DATA MANAGEMENT

**UCEAP Quarter Units**
5.00

**UCEAP Semester Units**
3.30

**Course Description**

This course covers database design and the use of databases in applications, with a focus on applications in the life sciences. Topics include the relational model, database design principles, the structured query language (SQL), including temporal and spatial queries. Data life cycle topics and contemporary issues for data scientists and practitioners are also introduced, i.e. big data, FAIR principles, data governance, licensing, privacy, blockchains. The course includes extensive practical work in the design, construction and use of databases in the students' field of study. Practical work involves MySQL and Microsoft Access. The course covers the following topics: a managerial perspective on an organization's memory; key concepts of data modelling and databases (i.e. entities, relationships, primary and foreign keys; data model diagrams with different notations (E-R diagrams); database queries with SQL including nested sub queries, arithmetic, logical and spatial operations; data problems and how to design solutions; the process for designing and implementing a database for a problem in their field of study.

**Language(s) of Instruction**
English

**Host Institution Course Number**
INF-21306

**Host Institution Course Title**
DATA MANAGEMENT

**Host Institution Course Details**

**Host Institution Campus**
Biosystems Engineering

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**
Information Technology

## Course Last Reviewed

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