

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 Campus

Biosystems Engineering

Host Institution Faculty

Host Institution Degree

Host Institution Department

Information Technology

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