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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