COURSE DETAIL

BIOSTATISTICS
Country Netherlands
Host Institution Utrecht University – University College Utrecht
Program(s) University College Utrecht
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Statistics Biological Sciences
UCEAP Course Number 103
UCEAP Course Suffix
UCEAP Official Title BIOSTATISTICS
UCEAP Transcript Title BIOSTATISTICS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

The course is devoted to understanding the fundamentals of descriptive and inferential statistics (concepts, rationale of analyses, and their assumptions), and to the application of techniques on data sets. It starts with a definition of basic concepts relevant to all statistical tests, eg chance and odds, randomness, data levels, and probability distributions. Systematic errors and random errors are discussed concerning their impact on the reliability and validity of data. Concepts explained include the sampling distribution, standard error, test statistics, chosen (alpha) and observed (p-value) significance level, type I and type II error, the power of a test, confidence intervals, and effect size measures. Research designs that are widely used in applied science research and relate these to different types of samples are used. The lab sessions include data sets to be checked and summarized using appropriate descriptive statistical techniques. Data transformations are applied where needed.

Language(s) of Instruction
English

Host Institution Course Number
UCACCSTA21

Host Institution Course Title
BIOSTATISTICS

Host Institution Course Details
https://cursusplanner.uu.nl/Curriculum

Host Institution Campus
University College Utrecht

Host Institution Faculty
Academic Core

Host Institution Degree

Host Institution Department
Statistics

Course Last Reviewed
2023-2024

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