

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 Campus

University College Utrecht

Host Institution Faculty

Academic Core

Host Institution Degree

Host Institution Department

Statistics

[Print](#)